94309

TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1921.

No. 455.

GALVESTON ELECTRIC COMPANY, APPELLANT,

vs.

CITY OF GALVESTON, O. H. SAPPINGTON, MAYOR OF THE CITY OF GALVESTON; J. C. PURCELL, ET AL., COMMISSIONERS, &c.

APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF TEXAS.

FILED AUGUST 5, 1921.

(28,410)

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JUDD & DETWEILER (INC.), PRINTERS, WASHINGTON, D. C., OCTOBER 19, 1921.

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1 *Precipe for Transcript.*

Filed May 31, 1921.

In the United States District Court for the Southern District of Texas, at Galveston.

In Equity.

No. 40.

GALVESTON ELECTRIC COMPANY

vs.

CITY OF GALVESTON et al.

Præcipe.

Now comes the Galveston Electric Company—plaintiff in the above entitled case—and requests that the record to be transmitted to the United States Supreme Court on its appeal from the final decree therein contain the following:

1. Bill of Complaint.

2. Original Answer of Defendants.

3. Supplemental or Additional Answer of Defendants.

4. Plaintiff's Answer and Replication to Original and Amended Answer of Defendants.

5. Order appointing Henry J. Dannenbaum as Special Master.

6. Condensed Statement of Evidence.

7. Findings of the Special Master.

8. Plaintiff's Exceptions to the Master's Report.

9. Defendants' Exceptions to the Master's Report.

10. Order Disposing of Exceptions. (Included in Decree. L. C. M., Clk. By G. P., Dep. Clk.)

11. Opinion of Court denying Injunction and Dismissing Bill of Complaint.

12. Final Decree.

13. Petition for Rehearing.

14. Order Overruling Motion for Rehearing.

15. Opinion Denying Rehearing.
16. Appeal of Plaintiffs to the Supreme Court of the United States.
17. Plaintiff's Appeal Bond for Costs.
18. Plaintiff's Assignments of Error.
19. Præcipe.

GALVESTON ELECTRIC COMPANY,
By BALLINGER MILLS,
Its Attorney.

Full and complete service of the above præcipe is hereby accepted for all defendants.

FRANK S. ANDERSON,
City Atty.;
McDONALD & WAYMAN,
Attorneys for Defendant.

May 31st, 1921.

2 (Indorsements:) No. 40. In Equity. Galveston Electric Co. vs. City of Galveston. Præcipe for Transcript. Filed 31st day of May, 1921. L. C. Masterson, Clerk, by G. Predecki, Deputy.

3 *Caption.*

In the District Court of the United States for the Southern District of Texas, Holding Sessions at Galveston.

In Equity.

No. 40.

Galveston Electric Company, Plaintiff,

vs.

City of Galveston and H. O. Sappington, Mayor of the City of Galveston, and J. C. Purcell, George E. Robinson, John H. Gernand, and A. P. Norman, Commissioners of the City of Galveston, Defendants.

Be it remembered, That in the above entitled and numbered cause, lately pending in said Court, at Galveston, and in which a Final Decree was rendered at the Regular January Term thereof, 1921, to wit: on the 10th day of February, 1921, and filed and entered on the 11th day of March, 1921, Honorable J. C. Hutcheson, Jr., United States District Judge for the Southern District of Texas, presiding, the following proceedings were had and taken, in said Court, to wit:

4 *Bill of Complaint.*

Filed May 8, 1920.

Suit Pending in the United States District Court, Southern District of Texas, at Galveston.

GALVESTON ELECTRIC COMPANY

vs.

CITY OF GALVESTON and H. O. SAPPINGTON, Mayor of the City of Galveston, and J. C. Purcell, George E. Robinson, John H. Gernand, and A. P. Norman, Commissioners of the City of Galveston.

To the Honorable Joseph C. Hutcheson, Jr., judge of said court:

Comes now the Galveston Electric Company, a corporation organized under the laws of the State of Texas, having charter powers to operate as a common carrier a system of street railways for carrying passengers in the City of Galveston, having its principal office and domicile in Galveston, Texas, and being a citizen of the State of Texas and of the United States, which said company is hereinafter called "plaintiff," and complains of the City of Galveston, a municipal corporation, and of the Honorable H. O. Sappington, Mayor of the City of Galveston, and of J. C. Purcell, George E. Robinson, John H. Gernand and A. P. Norman, Commissioners of the City of Galveston, which said Mayor and Commissioners constitute the Board of Commissioners of the City of Galveston, in which Board of Commissioners is reposed by the charter of said city the municipal government of said city, hereinafter collectively called "defendants," and for cause of complaint avers:

1.

That this is a suit of a civil nature and the amount involved, exclusive of interest and costs, is in excess of $3,000.00 and arises under the Constitution and Laws of the United States.

5 2.

That the plaintiff and its predecessor companies to whose title and interest it has succeeded has received from time to time various franchise grants from the City of Galveston granting to it the right, privilege and franchise to construct, maintain and operate in the City of Galveston a system of street railways upon the streets of the City of Galveston, and that it now holds and owns such franchise grants from said City of Galveston, granting it the right to construct, maintain and operate its system of street railway upon the streets of the City of Galveston until about December 1, 1950.

3.

Under and in accordance with franchise grants from the City of Galveston referred to in the foregoing paragraph hereof, the plaintiff has constructed, maintained and is now operating in the City of Galveston, a large system of street railway and is therewith rendering a public service, to-wit: The transportation of passengers upon and over the streets of the City of Galveston for hire.

4.

The charter of the City of Galveston granted by the Legislature of the State of Texas, vests in the Board of Commissioners of the City of Galveston the power of making laws and ordinances touching every object, matter and subject within the local government instituted by such charter and specifically vests said Board of Commissioners with power to prescribe reasonable fares and transfers for the carriage of passengers in cars of railway companies operated over the streets of the City of Galveston.

5.

For many years prior to October 1, 1918, the plaintiff charged and
received for a single continuous ride upon its cars so operated
6 upon the streets of the City of Galveston a fare for adults (except students not more than seventeen years of age, in actual attendance upon any academic or private school, of grades not higher than the grades of the public high schools of the State of Texas, situated within or adjacent to the City of Galveston), of five cents, and for all children over three years of age and under twelve years of age, two and one-half cents, the said fares having been prescribed as maximum fares by an ordinance of the City of Galveston, to-wit: Article 361 of the Revised Ordinances of the City of Galveston to June 1, 1917, which said article reads as follows:

"That no street railway company operating a street railway in this city shall charge or receive from any passenger more than five cents for one continuous carriage in the same direction, and all children over three years of age and under twelve years of age shall be transported in all street railways in the City of Galveston for one-half the fare charged adult passengers for one continuous carriage in the same direction; and street railways in this city are authorized to issue ten tickets for twenty-five cents, to be used exclusively in the payment of fares of children under the age of twelve years and over three years of age; and any conductor, driver or agent of any street railway in the City of Galveston, who shall require the payment of more than one-half the fare charged for the transportation of adult passengers for the transportation of any child between three and twelve years of age for one continuous carriage in the same direction, shall be deemed guilty of a misdemeanor, and shall be fined twenty-five dollars for every such violation of this ordinance."

Also for many years prior to October 1, 1918, the plaintiff charged and received for a single continuous ride upon its cars so operated upon the streets of the City of Galveston, a fare for students not more than seventeen years of age, in actual attendance upon any public or private school, of grades not higher than the grades of the public high schools of the State of Texas, situated within or adjacent to the City of Galveston, of two and one-half cents as required by the laws of the State of Texas.

The plaintiff also for many years prior to October 1, 1918
7 accorded to its passengers on request, certain privileges of
free transfer from one line to another line operated by the
plaintiff in the City of Galveston, as required by ordinances of the
City of Galveston.

6.

The Board of Commissioners of the City of Galveston on September 19, 1918, in the exercise of their law and ordinance making powers, passed and adopted an ordinance authorizing and permitting the plaintiff to fix its maximum fares for the carriage of passengers on its cars at six cents for each full fare and three cents for each half fare, of which said ordinance the following is a true copy:

"An ordinance authorizing and permitting the Galveston Electric Company to fix the Minimum rate of fares at six cents for each full fare and three cents for each half fare.

"Be it ordained by the Board of Commissioners of the City of Galveston, as follows, to-wit:

"Section 1. From and after September 30th, 1918, and until otherwise ordained by the Board of Commissioners of the City of Galveston, the Galveston Electric Company is authorized and empowered to fix and charge, demand and receive, a maximum rate of fare of not exceeding six cents per person for full fare and three cents per person for half fare from all persons who may travel as passengers upon the cars of the Galveston Electric Company, which cars are operated under the franchise, grants, privileges and ordinances heretofore granted by the City of Galveston to the Galveston Electric Company.

"Section 2. That nothing in this ordinance shall in any manner affect any other provision and condition of any grant, franchise or ordinance heretofore granted by the City of Galveston to the Galveston Electric Company, and now in force, and the right and power of the Board of Commissioners of the City of Galveston to alter, change and fix the maximum rate of fare to be charged by the Galveston Electric Company is hereby expressly reserved unto the City of Galveston.

"Section 3. As further compensation and remuneration to the City of Galveston for the rights, privileges and franchises granted, the Galveston Electric Company and by the acceptance of the terms and conditions of this ordinance, hereby undertakes, agrees and

promises to pay unto the City of Galveston, so long as the provisions of this ordinance shall remain in force and effect, one per
8 cent of all of the gross receipts of the Galveston Electric Company from fares received in the operation of its street cars, said payment to be made at least once a year.

"Section 4. Before any of the rights, by this ordinance granted, shall be used or enjoyed by the Galveston Electric Company, the said Company shall within ten days after the passage of this ordinance, file with the City Secretary of the City of Galveston, its written acceptance of this ordinance and all of the terms and conditions thereof.

"Section 5. This ordinance shall take effect and be in force from and after the date of its passage, provided said Galveston Electric Company shall file its written acceptance as required by Section 4 hereof."

From October 1, 1918, to June 5, 1919, the plaintiff, as permitted by said ordinance, passed by the Board of Commissioners of the City of Galveston, September 19, 1918, charged and received for a single continuous ride upon its cars operated upon the streets of the City of Galveston a fare for adults of six cents and for children between the ages of three and twelve years three cents, and for students not more than seventeen years of age as required by the law of the State of Texas above mentioned three cents, also continuing as required by ordinance of the City of Galveston the free transfer privilege above mentioned.

7.

The Board of Commissioners of the City of Galveston on June 5, 1919, in the exercise of their law and ordinance making powers, arbitrarily and notwithstanding the fact that the plaintiff was not deriving under the increased fares collected pursuant to the ordinance referred to and quoted above in Paragraph No. 6 hereof sufficient revenue to pay its operating expenses and taxes, depreciation charges and a fair return upon the value of its street railway property devoted to the public service in the City of Galveston passed and adopted an ordinance reducing the fares of the plaintiff to five cents for each person for full fare and two and one-half cents for each person
9 for half fare, and prohibiting the plaintiff from charging fares in excess of said amounts, of which said ordinance the following is a true copy:

"An Ordinance Fixing the Maximum Rate of Fares to be Charged by the Galveston Electric Company at Five Cents for Each Full Fare and Two and a Half Cents for Each Half Fare.

"Whereas, under and pursuant to an ordinance of the City of Galveston, granting franchises and privileges to the Galveston Electric Company, its predecessors, grantors and assignors, the rate of fare was placed at five cents for each full fare and two and a half cents for each half fare; and

"Whereas, by an ordinance of the City of Galveston, passed on the 19th day of September, 1918, said Galveston Electric Company was authorized and permitted from and after September 30, 1919, to fix and charge, demand and receive, a maximum rate of fare not exceeding six cents per person for full fare and three cents per person for half fare, and further, providing that the right and power of the Board of Commissioners of the City of Galveston to alter, change and fix a maximum rate of fare to be charged by the Galveston Electric Company, was expressly reserved unto the City of Galveston, which said ordinance, and all of the terms and conditions thereof, was accepted by the Galveston Electric Company; and

"Whereas, it appearing to the Board of Commissioners that the Galveston Electric Company is earning a dividend on its capital stock over and above all costs of operation and fixed charges, and that the net earnings of said company since the year 1905 and up to and including the year 1918, have rendered a fair and reasonable return to the stockholders of said company, and

"Whereas, it appearing that the public interest requires that the said rate of fare be reduced to five cents per person for each full fare and two and a half cents per person for each half fare, for all persons who may travel as passengers upon the cars of the Galveston Electric Company; and

"Whereas, it further appearing to the Board of Commissioners that such reduction will in no manner impair the credit of the Galveston Electric Company and that under said reduced rates of fare said company will continue to earn a fair and reasonable return upon its capital stock.

"Now therefore, be it ordained by the Board of Commissioners of the City of Galveston, as follows:

Section 1. From and after June 5, 1919, the rate of fare the Galveston Electric Company is authorized and empowered to fix and
charge, demand and receive, shall not exceed five cents for
10 each person for full fare and two and a half cents for each
person for half fare, from all persons who travel as passengers upon the cars of the said Galveston Electric Company, which cars are operated under the franchises, grants, privileges, ordinances and resolutions heretofore granted by the City of Galveston to the Galveston Electric Company, its predecessors, grantors and assignors, and now in force.

"Section 2. Nothing in this ordinance shall in any manner affect any other provision and condition of any grant, franchises, privileges, powers, rights or ordinances heretofore granted by the City of Galveston to the Galveston Electric Company, its predecessors, grantors and assignors, and now in force, and the right and power of the Board of Commissioners of the City of Galveston to alter, change and fix the maximum rate of fare to be charged by the Galveston Electric Company is hereby expressly reserved unto, the City of Galveston.

"Section 3. No compensation or remuneration to the City of Galveston for the rights, powers, privileges and franchises granted the

Galveston Electric Company, in the said ordinance passed September 19th, 1918, shall be demanded of, or paid by, said Galveston Electric Company, from fares received in the operation of its street cars pursuant to such powers, rights, privileges and franchises from and after the 5th day of June, 1919.

"Section 4. Nothing in this ordinance contained shall be deemed to in any manner affect the liability of the Galveston Electric Company for the payment of percentage on its gross receipts from fares received in the operation of its street cars from and after September 30th, 1918, up to and including the 5th day of June, 1919.

"Section 5. This ordinance shall take effect and be in force immediately from and after the date of its passage."

In compliance with and as required by said ordinance passed and adopted on June 5, 1919, the plaintiff has since said June 5, 1919, and continuing down to the date of the filing of this bill, charged and received for a single continuous ride upon its cars operated upon the streets of the City of Galveston a fare for adults of five cents and for children between the ages of three and twelve years, two and one-half cents, and for students not more than seventeen years of age as required by the law of the State of Texas above mentioned two and one-half cents, also continuing as required by ordinance of
11 the City of Galveston the free transfer privilege above mentioned.

8.

The plaintiff avers that the value of its street railway property devoted to the public service in the City of Galveston is not less than $2,000,000.00.

9.

The plaintiff avers that it requires as a reasonable annual allowance for depreciation an amount equal to at least 4% of the said value of its street railway property devoted to the public service in the City of Galveston.

10.

The plaintiff avers that it should be allowed to charge fares for street railway transportation which will yield sufficient revenue to pay its operating expenses and taxes, a reasonable annual allowance for depreciation amounting to 4% of the value of its street railway property devoted to the public service and in addition a reasonable rate of return upon the value of the street railway property of the plaintiff devoted to the public service; that a reasonable rate of return under existing conditions upon the value of street railway property of the plaintiff devoted to the public service is at least 8% per annum; that a return of no less than 8% per annum on said value is unfair, unjust, unreasonable and confiscatory; that the public pol-

icy of the State respecting the rate of return which should be allowed per annum upon the value of public utility properties is shown by Article 1018 of the Revised Civil Statutes of Texas, 1911, which article provides that the governing authorities of cities and towns of the State of Texas of over 2,000 population, incorporated under the general laws shall not, in fixing the rates or compensation to be charged, prescribe any rate or compensation which will yield any less than 10% per annum net on the actual cost of the properties
12 and by Article 1028 of the Revised Civil Statutes of Texas,
1911, which provides that courts of the State of Texas in fixing rates for various public utilities shall fix rates sufficient to yield not less than 10% upon the investment; that other public utilities in the State of Texas involving no greater risks to the capital invested and requiring no greater skill in management than the business of the plaintiff are permitted to and do earn a rate of return on the value of the property devoted to the public service of at least 8% per annum; that other enterprises in the State of Texas, as well as in other parts of the United States involving no greater risk to the capital invested and no greater skill in management than the street railway business earn much higher returns than the rate of 8% per annum of the property used in such enterprises; that the business of the plaintiff is subject to various risks and hazards which make it clear that any less rate of return than 8% per annum will be manifestly insufficient and inadequate to compensate the plaintiff and will be manifestly insufficient and inadequate to secure the investment in the business of the plaintiff of the new and additional capital required from time to time to extend its system, to increase its service and to meet the other investments of capital which from time to time it will be required to make to keep the plaintiff's business abreast with the public demand and for the reasons above stated and for other reasons, this honorable court should allow the plaintiff to earn a rate of return not less than 8% per annum upon the value of its street railway properties devoted to the public service and should decree that any less rate of return is unfair, unjust, unreasonable and confiscatory.

11.

The plaintiff avers that during the calendar year 1919, although it managed its said system of street railway in the City of Galveston in an efficient, skillful and economical manner, and although
13 during the first five months and six days of that year it
charged and received, as stated above, in Paragraph No. 6, six cents for full fares and three cents for half fares, as permitted by the ordinance passed and adopted by the Board of Commissioners of the City of Galveston on September 19, 1918, (and charged for the balance of said year, to-wit: from June 6, 1919 to December 31, 1919, the five cents full fare and two and one half cents half fare fixed as maximum fares in the ordinance passed and adopted on June 5, 1919, as above stated in Paragraph No. 7) it failed to derive sufficient revenue during such year to pay its operating expenses

and taxes, said reasonable annual allowance for depreciation and a fair return upon the value of its street railway property devoted to the public service in the City of Galveston, but on the contrary, during such calendar year 1919, its gross earnings after paying operating expenses and taxes and allowing therefrom said reasonable annual allowance for depreciation, yielded as a return to the plaintiff upon the said minimum value of its street railway property devoted to the public service in the City of Galveston only $40,907.56, being at the rate of 2.04% per annum on said minimum value of its street railway property devoted to the public service in the City of Galveston, all as shown by the following statement of street railway gross earnings, operating expenses, taxes, depreciation, allowance and net earnings for that year:

Statement for Year 1919.

Gross Earnings	$519,034.45
Operating Expenses	358,326.89
Balance	160,707.56
Taxes	39,800.00
Net Earnings	120,907.56
Annual Depreciation Allowance of 4% upon said minimum Value of $2,000,000.00	80,000.00
Net Earnings Applicable to Return on Value of Street Railway Property in City of Galveston devoted to public service	40,907.56

11 being at the rate of 2.04% per annum of said minimum value of the street railway properties of the plaintiff in the City of Galveston, devoted to the public service, and the plaintiff avers that said amount is the sole and entire amount earned during such year as a return to it upon the value of its street railway properties devoted to the public service in the City of Galveston.

12.

The plaintiff avers that during the first three months of the calendar year 1920, to-wit: January, February and March being the last three months for which its operating figures are available, although it managed its street railway system in the City of Galveston during said three months in an efficient, skillful and economical manner, it failed to derive sufficient revenue during such three months to pay its operating expenses and pro rata accruals for taxes, the proportionate part of said reasonable annual allowance for depreciation and a fair return upon the value of its street railway property devoted to the public service in the City of Galveston, but on the contrary, during such three months period its gross earnings, after paying operating expenses and allowing for prorata accruals for taxes and allowing therefrom a proportionate amount for said three months to cover said reasonable allowance for depreciation, yielded as a return to the plaintiff upon said minimum value of its street railway property devoted to the public service in the City of Galveston, $1,277.98 being at the rate of three tenths of one per cent per annum on said minimum value of its street railway property devoted to the public service in the City of Galveston, all as shown by the following statement of street railway gross earnings, operating expenses, prorata accruals for taxes, proportionate depreciation allowance and net earnings for said three months of January, February and March, 1920:

15 *Statement for Three Months—January, February, March,* 1920.

Gross Earnings	$126,614.16
Operating Expenses	96,386.18
Balance	30,227.98
Accruals for Taxes for January, February and March, 1920	8,950.00
Net Earnings	21,277.98
Proportionate allowance for Depreciation for January, February and March, 1920	20,000.00
Net Earnings Applicable to Return on Value of Street Railway Property of the Plaintiff in the City of Galveston, devoted to the Public Service	1,277.98

being at the rate of three tenths of one per cent per annum of said minimum value of the street railway properties of the plaintiff in the City of Galveston, devoted to the public service.

13.

The plaintiff avers that it has no substantial source of revenue from its street railway property in the City of Galveston devoted to the public service, except fares which it collects for carrying passengers, and that if it should undertake to increase its fares to such an amount as would yield sufficient revenue to pay operating expenses, taxes, a reasonable depreciation allowance and a sufficient amount to pay it a fair return upon the value of its street railway properties devoted to the public service in the City of Galveston, that the City of Galveston and its Board of Commissioners, (the defendants herein) would undertake to prevent the plaintiff from so increasing its fares and would seriously interfere with and harass the plaintiff in the operation of its properties and would subject it to numerous and diverse suits and prosecutions for penalties and forfeitures and would undertake to forfeit its charter and franchises and cast a cloud upon its right to operate its street railway system and would institute numerous prosecutions against its officials, all, of 16 which would materially injure, if not destroy the business and credit of the plaintiff and materially interfere with the performance by it of its duty to the public and cause it serious and irreparable injury and damage for which it would have no adequate remedy at law.

14.

The plaintiff believes and therefore avers that it would have to charge and collect as fares for the transportation of passengers on its street railway system in the City of Galveston seven cents for one continuous ride for adults, three and one-half cents for children between the ages of five and twelve years and three and one-half cents for students as required by the law of the State of Texas above referred to, in order that its gross revenue would be sufficient to pay operating expenses and taxes, a reasonable annual allowance for depreciation and a fair return on the value of its street railway property devoted to the public service in the City of Galveston; but the plaintiff is unable to charge and collect said fares because of the things alleged in the foregoing paragraph hereof.

15.

The plaintiff avers that said ordinance of June 5, 1919, copied in Paragraph No. 7 hereof, is contrary to the Constitution of the United States and void, insofar as it fixes the maximum fares which the plaintiff is entitled to charge, and insofar as it interferes with and prohibits the plaintiff from raising its fares to such a point as will enable it to earn its operating expenses and taxes, a reasonable annual allowance for depreciation and a fair return upon the value of its street railway property devoted to the public service in the City of Galveston and that said ordinance, therefore, deprives the plaintiff of its property without due process of law, in violation of the Constitution and laws of the State of Texas and of the
17 United States, and particularly in violation of that portion of Section 1 of the Fourteenth Amendment to the Constitution of the United States which provides that "No state shall make or enforce any law which shall abridge the privileges or immunities of the citizens of the United States, nor shall any state deprive any person of life, liberty or property without due process of law; nor deny to any person within its jurisdiction the full protection of the law"; and is also in violation of that portion of the Fifth Amendment to the Constitution of the United States which provides that "No person shall be deprived of life, liberty or property without due process of law, nor shall private property be taken for public use without just compensation".

Wherefore, plaintiff prays that the defendants be subpœnaed as required by law, in such cases, and that pending this suit a preliminary injunction be issued, restraining the defendants, each of them, from enforcing the said ordinance passed and adopted by the Board of Commissioners of the City of Galveston on June 5, 1919, fixing the maximum rate of fare to be charged by the plaintiff at five cents for each full fare and two and one-half cents for each half fare and from interfering with the plaintiff in any way in putting into force and effect a seven cent fare for adults and a three and one-half cent fare for such other persons as under the laws of Texas and the ordinances of the City of Galveston should be carried for half fare, or such other fare as the court may find it necessary for the plaintiff to charge, in order to yield sufficient revenue to enable it to pay its operating expenses and taxes, a reasonable annual depreciation allowance and a fair return on the value of its street railway property devoted to the public service in the City of Galveston; and that on final hearing the court determine what rate of fare is necessary for said purposes and that it enter an order and 18 decree perpetually enjoining the defendants and each of them from enforcing the said ordinance passed and adopted on June 5, 1919, and from interfering with the plaintiff from fixing and establishing such rates of fare as shall be found to be reasonably necessary for the purpose of enabling the plaintiff to earn its operating expenses and taxes, a reasonable annual allowance for depreciation and to pay a fair return upon the value of its street railway properties devoted to the public service in the City of Galveston and for costs and general relief.

BALLINGER MILLS,
C. R. WHARTON,
WILLIAM E. TUCKER,
Solicitors for Galveston Electric Company.

STATE OF TEXAS,
County of Harris:

Before the undersigned authority on this day personally appeared William E. Wood, who being duly sworn deposes and says that he is the Manager of the Galveston Electric Company, the plaintiff in the foregoing bill of complaint and that the facts stated in the foregoing bill of complaint are within the knowledge of the affiant—and true, except where stated on information and belief, and as to said facts he verily believes them to be true.

WILLIAM E. WOOD.

Sworn to and subscribed before me this 8th day of May, 1920.

[SEAL.] GEO. A. HILL, JR.,
Notary Public in and for Harris County, Texas.

(Indorsements:) No. 40, Eq. Galveston Electric Co. vs. City of Galveston, et al. Original Bill of Complaint. Filed 8 day of May, 1920. L. C. Masterson, Clerk, by J. L. Sexton, Deputy.

19 *Answer.*

Filed May 21, 1920.

Suit Pending in the United States District Court, Southern District of Texas, at Galveston.

Ch. No. 40.

No. —.

GALVESTON ELECTRIC COMPANY

vs.

CITY OF GALVESTON, H. O. SAPPINGTON, Mayor of the City of Galveston, and J. C. Purcell, George E. Robinson, John H. Gernand, and A. P. Norman, Commissioners of the City of Galveston.

Come now the Defendants in the above entitled and numbered cause, the City of Galveston, and H. O. Sappington, Mayor of the City of Galveston, J. C. Purcell, George E. Robinson, John H. Gernand and A. P. Norman, Commissioners of the City of Galveston, now and at all times saving and reserving to themselves all benefits and advantages of exceptions to the many errors, uncertainties, imperfections and insufficiencies in complainant's bill of complaint contained, and for answer to the rule to show cause herein why an injunction should not issue against them as prayed for in Plaintiff's bill of complaint, say:

1.

These defendants deny that plaintiff's cause of action as set forth in its bill of complaint arises under the Constitution and laws of the United States.

2.

These defendants admit the second paragraph or sub-division of plaintiff's bill of complaint and say that in or about the year 1900 the defendant, City of Galveston, entered into a certain contract with one Charles F. Hotchkiss by the terms of which said City of Galveston granted certain rights, privileges and franchises of acquiring, owning, repairing and maintaining and operating certain street railways within the corporate limits of said City and that the following is a copy of said contract, viz:

20 Grant to Charles F. Hotchkiss, Purchaser of the Galveston City Railroad Company.

Section 1. That there be and is hereby granted to Charles F. Hotchkiss, the purchaser of the railways, rights, privileges, franchises and other property of the Galveston City Railroad Company, at the sale thereof under decrees of the circuit court of the United States for the eastern district of Texas, at Galveston, in equity cause No. 337, and purchaser of the railways, rights, privileges, franchises and other property of the Gulf City Street Railway and Real Estate Company at the sale thereof, under decrees of said court in equity cause No. 338, and to his assigns, and to any corporation that may be organized under the laws of the state of Texas by him or by his associates or assigns for that purpose, and its successors or assigns, the right, privilege and franchise of acquiring, owning, repairing, maintaining and operating the street railways, with the rights, privileges, franchises and other property appertaining thereto, heretofore owned and operated by the Galveston City Railroad Company and by the Gulf City Railway and Real Estate Company, or either of them, on, across and along the following streets and avenues in the city of Galveston, and as follows, to-wit:

On Avenue C or Mechanic Street a double track, extending from Twenty-first Street to Twenty-fifth Street, with a double track connecting curve from south to west at Twenty-first Street, from east to south at Twenty-second Street, and from east to south at Twenty-fifth Street.

On Avenue D or Market Street a single track extending from *amount* midway between Seventh and Eighth Streets westwardly to Tenth Street; thence a double track westwardly to Thirty-third Street with two single track connecting curves, one from east to south at Twenty-first Street, and a double track connecting curve from east to south at Thirty-third Street.

21 On Avenue E or Postoffice Street, a single track from Twenty-first street to Twenty-ninth street, with a single track connecting curve from south to west at Twenty-first street, from north to east at Twenty-fifth street and from w*a*st to south at Twenty-ninth street.

On Avenue F or Church street, a single track, extending from Twenty-second street westwardly to Forty-first street, with a single track connecting curve from north to west at Twenty-second street, from east to south at Twenty-seventh street and from east to south at Forty-first street; also two single track connecting curves at Thirty-third street, one from east to south, the other from north to west.

On Avenue G or Winnie street, a single track, extending from Twenty-second street westwardly to Forty-first streets, with a single track connecting curve from north to west at Twenty-second street, from east to south at Twenty-seventh street, one from north to west and one from east to south at Thirty-third street, and one from east to south at Fortieth and Forty-first streets; also on Avenue G a single track from Eighth street westwardly to Twenty-second street with a single track connecting curve from south to west at Eighth street and from east to north at Twenty-first street.

On Avenue H a single track extending from Eighth street westwardly to Twenty-second street, with a single track connecting curve from north to west at Eighth Street and from east to north and from east to south at Twenty-first street, and from east to north at twenty-second street.

On Avenue J or Broadway, a double track from Sixth street westwardly to Fortieth street and a single track from Fortieth street to Forty-first street, with two double track connecting curves, one from north to east and one from north to west at Twenty-first street; a single track connecting curve from west to north at Twenty-second street and from east to south at Twenty-ninth street, one 22 double track connecting curve from east to south, one single track connecting curve from north to west and one from west to south at Fortieth street, and one single track connecting curve from north to east at Forty-first street.

On Avenue L a single track from Eighth street westwardly to Twenty-second street with a single track connecting curve from east to north at Twenty-first and at Twenty-second street; also on Avenue L from Twenty-second street to Fort*h*-first street with a single track connecting curve from north to west at Twenty-second street, one from east to north, and one from north to west at Fortieth street and one from east to south at Forty-first street.

On Avenue M a single track from Twenty-ninth street to Thirty-first street, with a single track connecting curve from north to west at Twenty-ninth street and from east to south at Thirty-first street.

On Avenue O a single track from Twenty-ninth street westwardly to Thirty-seventh street, with a single track connecting curve from north to west at Twenty-ninth street and Thirty-first street and from east to south at Thirty-seventh street.

On Avenue Q a double track from Twenty-first street westwardly to Twenty-seventh street, with double track connecting curves from north to west at Twenty-first street, from east to north and west to north at Twenty-fifth street, and from east to north and from west to north at Twenty-seventh street, and also a single track on Avenue Q from Twenty-seventh street westwardly to Thirty-third street, with a double track connecting curve from north to west at Twenty-seventh street and a single track connecting curve from east to north at Thirty-third street; also on Avenue Q a single track from Fortieth street to Forty-first street, with one single track connecting curve from north to West at Fortieth street, and two single track connecting curves, one from east to south and one from east to north at Forty-first street.

23 On Avenue R a double track extending from Forty-first street to Fifty-third street, with a double track connecting curve from north to west at Forty-first street and from east to south at Fifty-third street.

On Avenue T½ a single track from Fifty-third street to Fifty-sixth street, with a single track connecting curve from north to west at Fifty-third street and from east to south at Fifty-sixth street.

On Avenue V½ a single track from Fifty-third street to Fifty-sixth street, with a single track connecting curve from north to west at Fifty-third street and from east to north at Fifty-sixth street.

On Twenty-first street a single track from the south side of Avenue B for one-half block, then a double track southwardly to Avenue Q, there connecting with the double track on Avenue Q, with a single track connecting curve from north to east and from south to east at Avenue G; single track connecting curves, one from east to south and one from west to south at Avenue D, one from north to east and one from south to east at Avenue H, and with barn curves between Avenue H and Avenue I; two double track connecting curves from north to east and from north to west at Avenue J and a single track connecting curve from north to east at Avenue L, and double track connecting curves from north to west at Avenue Q.

On Twenty-second street a single track from the south side of Avenue B southweardly one-half block, then a double track southwardly to Avenue L with a double track connecting curve from east to south to Avenue C, a single track connecting curve from west to south at Avenue C a single track connecting curve from north to west at Avenue F and at Avenue G and from north to east at Avenue H, and from north to west at Avenue J, and two single track connecting curves at Avenue L, one from north to west and one from north to east.

24 On Twenty-fifth street a double track from Avenue C southwardly to Avenue Q, with a double track connecting curve from east to south at Avenue C and from north to east and north to west at Avenue Q; also a single track connecting curve from north to east at Avenue E.

On Twenty-seventh street a single track extending from Avenue F southwardly to Avenue N; thence a double track to Avenue Q, with a single track connecting curve from east to south at Avenue F and at Avenue G; also a double track connecting curve from west to south and from north to east at Avenue Q.

On Twenty-ninth street a single track from Avenue E to Avenue O, with a single track connecting curve from east to south at Avenue E and at Avenue J, and also from north to west at Avenue M and at Avenue O.

On Thirty-first street a single track from Avenue M to Avenue O, with a single track connecting curve from east to south at Avenue M and from north to west at Avenue O.

On Thirty-third street a double track from Avenue D to Avenue G; a single track from Avenue G to Avenue N½; a double track from Avenue N½ to O; a single track from Avenue O to Avenue Q, with a double track connecting curve from east to south at Avenue D, two single track connecting curves, one from north to west and one from east to south, at Avenue F; two single track connecting curves, one from north to west and one from east to south, at Avenue F; two *two* single track connecting curves, one from north to west and one from east to south, at Avenue G, and a single track curve connecting curve from north to east at Avenue Q.

On Thirty-seventh street a single track from Avenue O to Avenue R, with a single track connecting curve from east to south at Avenue O.

25 On Fortieth street a single track from Avenue G to Avenue J; thence double track to Avenue L; thence single track to Avenue Q, with a single connecting curve from east to south at Avenue G; a single track connecting curve from north to west and

from west to south and a double track connecting curve from east to south at Avenue J; two single track connecting curves, one from north to west and one from east to north, at Avenue L; three barn and one yard curves between Avenue L and M and a single track connecting curve from north to West at Avenue Q.

On Forty-first street a single track from Avenue F to Avenue J, with a single track connecting curve from east to south at Avenue F and from North to east at Avenue J; also on Forty-first street a single track from Avenue L to Avenue Q; thence a double track from Avenue Q to Avenue R with a single track connecting curve from east to south at Avenue L, two single track connecting curves, one from north to east and one from south to east, at Avenue Q, and a double track connecting curve from north to west at Avenue R.

On Fifty-third street a double track from Avenue R southwardly to Avenue S; thence a single track southwardly to Avenue V½, with a double track connecting curve from east to south at Avenue R and a single track connecting curve from north to west at Avenue T and at T½.

On Fifty-sixth street a single track from Avenue T½ southwardly to Avenue V½, with a single track connecting curve from east to south at Avenue T½ and from north to east at avenue V½.

Together with all necessary switches, side tracks, turnouts, crossovers, poles, wires, machinery, sheds, power houses, real estate and other suitable works and structures in connection with said railways and with the right to own and operate the same as an entirety.

26 Sec. 2. That the grantees herein and any person or corporation hereafter purchasing or owning the street railways described in the preceding section, be and they are hereby authorized and empowered to use electricity as a motive power in running and operating cars on and over said lines of railway and to supply at reasonable prices electric light and power to the inhabitants and to the city of Galveston, and to that end shall have the right and are hereby authorized to set and maintain poles, pins, abutments, wires and other suitable fixtures on, along and across any of the streets and alleys of the city of Galveston, subject to the following regulations, to wit:

(*a*) The poles used as herein provided shall be of sound timber, not less than five inches in diameter at the upper end, reasonably straight and of uniform size. All poles when placed shall be thoroughly painted with one coat of mineral paint of such colors as may be directed by the city or those designated by it, but in case said poles are creosoted, then the same need not be painted. Said trolley wires shall be run at a height of not less than eighteen feet above the grade of the street, and all other wires at a height of not less than twenty feet. Whenever the poles are erected on a street they shall be placed, in all cases when practicable, on the outer edge of the sidewalk, just inside the curbstone, and on the line dividing the lots one from the other, and in no case to be so placed as to obstruct the drainage of the street, or to interfere with or damage the drainage of the street, or to interfere with or damage in any way the curbstone or other public or private property on the line of the street, or alley where such poles shall be erected. All work of excavating, refilling and restoring the payment shall be done at the expense of the owner of said railways under the supervision of the city engineer and to his entire satisfaction, and in all cases the pavement shall be restored as soon as possible and to the same condition as it was before.

27 (*b*) The right is hereby reserved to the city, at any time, to direct any alteration in the location of poles or in the height at which the wires shall be run, or in case the said wires and poles shall at any time be deemed a nuisance or obstruction by the city council, to direct and compel the removal and change of the same, so as to comply with the terms of this ordinance.

(*c*) The owners of said railways shall at all times keep on deposit with the city treasurer the sum of not less than fifty dollars, subject to the order of the city engineer, to be used by him in restoring any sidewalk, gutter, street or pavement displaced or injured in the erection, alteration or removal of any such poles whenever the owner fails or refused to make such restoration to the satisfaction of the committee on streets and alleys and city engineer.

(*d*) The said owner shall at all times permit the city to use and occupy the crossarm of any pole erected, or to be erected, for fire, police or municipal telegraph or telephone purposes free of charge.

(*e*) That said owner shall become solely responsible and hold the city harmless against all claims, suits, expenses and damages growing out of the use of electricity as a motive and lighting power, and the use of the streets, alleys and sidewalks and the placing of its poles, wires and equipments and the use of all or any of said privileges and property under the provisions of this ordinance.

(*f*) Whenever the charges fixed by the owner of said property for lights shall become unreasonable, or beyond what such lights can reasonably be supplied for, then the city council reserves the right to fix a maximum rate to be charged by said company either for light furnished to the city or to private consumers.

(*g*) Said wires and polls shall be constructed, maintained and
operated in such a manner as to interfere in no way with the
28 city's fire alarm and telegraph and electric light plants.

(*h*) Said grantees, their successors and assigns, shall not consolidate, or in any manner combine their electric light and power business, rights, franchises, or property with those of any other company.

(*i*) Whenever said city shall require any other company or person owning or operating wires in said city for supplying light or power, or both, to place the wires under ground, then and thereafter said city shall have the right to require the grantee herein and his successors and assigns to place under ground all wires used only for the purpose of supplying light and power to said city or the inhabitants thereof, and to pass all measures necessary and proper to that end.

Sec. 3. The grantees named and their successors and assigns shall at all times keep the roadbed of said railway in good repair and upon a level with the street, and when a street is raised or lowered the owners of said railways shall raise or lower their track and roadbeds to conform thereto; and whenever the city shall hereafter fill, grade, pave or otherwise improve any of the streets or avenues occupied by any of said tracks, then the owners of said tracks and of the rights hereby granted shall pay all expenses of filling, grading, paving or otherwise changing, improving and maintaining the street between the rails of their respective tracks, and between all double tracks and for the space of one foot on the outside of the rails; and shall also construct and keep in good repair all cross culverts, whenever the same way may be required by the city, under their tracks, said culverts to extend across the streets from sidewalk to sidewalk, all of which work shall be done subject to the approval and under the direction of the city council, or such officer or committee as it may designate*l* and when the owners or operators of said railways shall fail to construct and keep in order the culverts, tracks and roadbeds,
as required by this ordinance, the city shall have the right
29 to cause them to be constructed or put in proper condition
and repair at the expense of said owners or operators, and in the event of their refusal to pay the same the city may sue for the amount. The city at its option may require the owners or operators of said railway or railways to make the changes, improvements and repairs and do the work hereinbefore specified in this section, or the city itself may make, or cause to be made, said changes, improvements and repairs, and may do or cause to be done any or all of the work specified in this section, and the cost thereof, together with the expense of collecting the same, shall be a special tax and lien against the roadbed, ties, rails, fixtures, rights, franchises and property of such railways or railway companies, and they shall be due and collected by the city whenever and as soon as such improvements, changes and repairs, or other work, are completed and accepted by the city council, it being the purpose hereof, and it being hereby expressly ordained that the said railways or railway companies shall in all instances either make all said changes, repairs, improvements and work at their own cost and expense, or, should the city so prefer, it may do or cause to be done the same in such manner and of such material as it may choose, and hold said railways and railway companies, and all of their said property, liable for the same with a valid first lien hereby conferred to and agreed to against all of said property of said railways or railway companies, to secure all costs and expenses incurred by said city in and about the changes, repairs and improvements and work hereinbefore designated.

Sec. 4. That the rate of fare shall not exceed 5 cents for each person over 5 years of age for one continuous carriage in the same direction by the car, or for the entire circuit of any belt line as heretofore or hereafter operated, or for such portion thereof as may be traveled by the passenger; and no fare shall be charged for the carriage of children under 5 years of age, unless they occupy seats in the car.

30 Sec. 5. Members of the police force and fire department of the city of Galveston, while in active service, shall not be required to pay any fare, and from the first day of May to the first day of September of each year there shall be established by the owners of said street railroad a station at some place to be designated by them on the street known as Twenty-first or Center Street, where transfers without additional charge shall be furnished between the hours of 5 o'clock p. m. until the cars stop running for the day to all passengers traveling to or from the beach.

Sec. 6. That the powers, rights, privileges and franchises hereby granted and conferred shall exist and continue for a period of fifty years, from the 1st day of December, 1900, to December 1, 1950, at which time the same shall cease and determine, but on the first day of December, 1925, the city of Galveston shall have the option, right and privilege of purchasing all the street railways hereby authorized to be owned, maintained and operated, together with all the side tracks, switches, crossovers, turnouts, poles, wires, machinery, sheds, power houses and other appliances and properties of every character used or required in connection with said railways and the operation thereof, at the value of the same at that time, as such value shall be ascertained and determined by an appraisement or arbitration in the mode prescribed by the laws of Texas, relating to arbitration; and if the said option, right and privilege of so purchasing shall not be exercised by the city of Galveston on said first day of December, 1925, then such option, right and privilege of so purchasing shall recur every five years thereafter until the expiration of the rights and franchises herein granted, as above provided.

Sec. 7. Whenever the gross income of the aforesaid street railways from passenger fares shall amount to three hundred thousand dollars per annum, or over, the city of Galveston shall have the right to pass appropriate ordinances requiring the said railroad company
31 to furnish all passengers with transfers, who may be compelled to use two lines of said railroad company to reach their destination.

Sec. 8. That it is further ordained and provided as a condition of this grant that said grantee, or his assigns, or the corporation that may be organized under the laws of the state of Texas by him or his associates and assigns, shall and do hereby agree to pay or cause to be paid to the city of Galveston the amount of a certain decree entered March 22nd, 1900, in equity cause No. 337, entitled Guaranty Trust Company of New York et al. vs. Galveston City Railroad Company, in the circuit court of the United States for the Eastern District of Texas, at Galveston, the same being in favor of the city of Galveston, for $30,000.00 with interest thereon from March 22nd, 1900, at the rate of 6 per cent per annum, and all costs of suit (all of which is

fully set forth in said decree, to which reference is hereby made, an appeal from which decree is now pending in the United States circuit court of appeals for the Fifth circuit), the same being the value as claimed by the said city for its interest as a stockholder or mortgagee, or otherwise, in the Galveston City Railroad Company and its property, under the contract with B. Rush Plumly and his associates, of May 1866, and any contract or ordinance amendatory thereof, or supplemental thereto; and if the amounts above specified shall not have been paid to said city of Galveston within thirty days from the date this ordinance shall take effect, then this grant, and all rights thereunder, shall cease and become void, without any further action on the part of said city; provided, however, that the said city, if said grantee or his assigns so desire, shall transfer and assign said decree, and all its rights and interest thereunder, to the grantee or his assigns, without recourse upon the city of Galveston, and the said city shall in its own name but for the use and benefit of said grantees or his assigns defend and resist in the said circuit court of appeals the appeal now pending therein from the aforesaid decree of March 22nd,
32 1910; and provided further, that nothing herein contained shall be construed as a *stee*lement of any other claim, right or lien asserted by said city of Galveston against said Galveston City Railroad Company and other parties and property in equity causes Nos. 337 and 338.

Sec. 9. That the powers, rights, privileges and franchises hereby granted and conferred shall be and are in lieu of the powers, rights, privileges and franchises arising from and conferred by the contract between the city of Galveston and B. Rush Plumly and associates, entered into May, 1866, and also arising from and conferred by the following ordinances, to-wit: An ordinance making a grant to the People's Railway Company, approved July 10, 1873, and amended March 3, 1875; ordinance making a grant to the Galveston City Railroad Company, passed September 7, 1885; an ordinance making a grant to the City Railroad Company, approved October 6, 1885; an ordinance making a grant to the Galveston City Railroad Company April 9, 1886; an ordinance making a grant to the Galveston City Railroad Company, approved December 6, 1887; an ordinance making a grant to Francis D. Allan and associates, approved November 6, 1883; an ordinance making a grant to Francis D. Allan and associates approved March 5, 1884; an*d* ordinance making a grant to the Gulf City Street Railway and Real Estate Company, passed April 22, 1884; an ordinance making a grant to the Gulf City Street Railway and Real Estate Company, passed August 4, 1884; an ordinance making a grant to the Gulf City Street Railway and Real Estate Company and revoking a grant to the Galveston City Railroad Company, or People's Railway Company, approved September 9, 1885; an ordinance making a grant to the Gulf City Street Railway and Real Estate Company, approved September 25, 1885; an ordinance making a grant to the Gulf City Street Railway and Real Estate Company, approved October 6, 1885; an ordinance making a grant to the Gulf City Street Railway and Real Estate Company, approved April 22, 1886, and an ordinance granting franchises to the Galves-

ton City Railroad Company, passed February 21, 1895, and
33 all of the said ordinances, resolutions, contracts or acts of said city of Galveston, hereinbefore named, and be and they are expressly repealed, this ordinance being hereby ordained and accepted as a complete substitute therefor, but without the decree and sale of the United States circuit court of the aforesaid railroad and properties, except as otherwise provided by this ordinance.

Passed December 17, 1900.

That thereafter the said Charles F. Hotchkiss duly assigned to the Galveston City Railway Company, a corporation, organized under the laws of the state of Texas, all and singular the rights, privileges and franchises acquired by him under the said grant from the city of Galveston, and the said Galveston City Railway Company thereupon succeeded to all such rights, privileges and franchises subject to all of the conditions and terms of said grant from the city of Galveston to the said Charles F. F. Hotchkiss; and that during the years 1901, 1902, 1903, 1904 and part of 1905 said Galveston City Railway Company was in possession of and operated certain lines of street railway in the city of Galveston pursuant to the terms and provisions of said grant.

That on or about the 6th day of October, 1904, the defendant, City of Galveston, entered into a certain contract with Galveston City Railway Company whereby said City granted to the Galveston City Railway Company certain rights, privileges and franchises therein mentioned and described and under the terms and conditions therein mentioned, and that the following is a copy thereof, to-wit:

34 Grant to Galveston City Railway Company.

Section 1. That there be and is hereby granted to the Galveston City Railway Company the right, privilege and franchise of owning, constructing, repairing, maintaining and operating a street railway for the term of fifty years from and after the 17th day of December, 1900, on, across and along the hereinafter specified streets and avenues in the city of Galveston, Texas, and of owning, constructing, repairing, maintaining and operating, during said term, all such curves and connections as may be necessary for the convenient operation of its existing lines and those hereafter constructed:

On Thirty-third street, a second tract from Avenue G to Avenue N. ½, from Avenue O to Avenue Q.

On Thirty-seventh street from Avenue R to Avenue T, a double track.

On Forty-first street from Avenue T to Avenue U, a double track.

On Fifty-third street from Avenue V½ to the beach, a single track.

On Fifty-sixth street from Avenue V½ to the beach, a single track.

On Avenue Q from Thirty-third street to Twenty-seventh street, a second track.

On Avenue T from Thirty-seventh street to Forty-first street, a double track.

On Avenue U, from Fifty-first street to Fifty-sixth street, a double track.

On Avenue W½ from Fifty-third street to Fifty-sixth street, a single track.

Section 2. This grant is made subject to all the conditions and limitations contained in an ordinance passed December 17, 1900, entitled "An ordinance granting to Charles F. Hotchkiss, the purchaser thereof, under decrees of the circuit court of the
35 United States, and to his assigns, and to any corporation that may be organized under the laws of Texas by him or his associates and assigns for that purpose, the right, power, privilege and franchise of owning, maintaining and operating the street railways, with the rights, privilege, franchises and other property, appertaining thereto, heretofore owned and operated by the Galveston City Railroad Company and by the Gulf City Street Railway and Real Estate Company on, along and across certain streets and avenues in the city of Galveston, with the right to reconstruct the said properties and relocate portions of the tracks on other streets, and avenues; extending and fixing the terms of such rights, franchises and privileges and franchises hereby granted, and repealing all ordinances in conflict herewith", and all of the limitations and conditions contained in said ordinance shall extend and apply to the grant hereby made to the same extent as though this grant had been made specifically by and in said ordinance.

Sec. 3. That all work done under this ordinance shall be done in such manner and within such time that the use of the streets shall not be interfered with, and any pavement or any other part of any street, alley or other ground disturbed in the progress of such work shall be restored at the expense of the said grantee in such manner as shall be acceptable to the city engineer of said city.

Sec. 4. That all work of construction, maintenance and repair done under this ordinance shall be performed under the direction, supervision and control of and to the satisfaction and approval of the city engineer of said city, or other official or officials of said city who may be charged with such direction, supervision and control, and so as not to interfere with or hinder the drainage of said city, the right being hereby reserved to the said city of Galveston to remove, or cause to be removed, at the expense of the grantee herein, any structure constructed under this ordinance whenever, in the judgment of the board of commissioners, or other government of said city, it shall become expedient or necessary to do so, and all
36 the property, structures and appliances constructed, provided, used or employed under this ordinance shall always be maintained in good, serviceable and safe condition.

Sec. 5. That said city of Galveston does not part with, but expressly reserves the right and duty to at all times exercise in the interest of the public full superintendence, regulation and control, in every respect, over the rights, privileges and permission hereby granted, and especially in all matters connected with the police powers of said city, and from time to time may restrict or modify the terms or conditions upon which the same may be used or continued, or revoke the same, according to the demands of the public safety, and in case any of the conditions and terms of this ordinance, or of any other ordinance, rule, regulation or provision heretofore or hereafter enacted for observance in the construction, maintenance or use of the property hereby permitted to be constructed, maintained and used, shall be violated and not complied with, then and in such event, the board of commissioners, or other government of said city of Galveston, may, by ordinance, or other act, declare or cause to be forfeited all the grants hereby made, or otherwise compel compliance with the terms of this ordinance and the maintenance of said property in good condition through the full term of the grant hereby made.

Sec. 6. That no permission, privilege or right by this ordinance granted shall be transferred, assigned or let to any person or corporation without the assent of the city of Galveston being first obtained by ordinance duly enacted, and any such transfer, assignment or letting shall be subject always to the terms and conditions of this ordinance and every other rule or regulation now in force or hereafter made upon the subject.

Sec. 7. From and after the first day of May of each year after the passage of this ordinance, up to and including the first day of October of each year, the said Galveston City Railway Company and the owner or owners thereof, shall furnish transfers to the public good for use only at the intersection at Twenty-first street 37 and Market street, or within one block thereof, without extra charge for the same, from 5 o'clock p. m. until the cars stop running for the day, to all passengers traveling to or from the following lines operated and maintained by said railway company, to-wit: The Twenty-fifth street or Rosenberg Avenue, or Bath Avenue, line, the Twenty-seventh street, or Garden Verein line, and the Thirty-third street line, from or to other lines operated by said company. The said transfers shall be furnished and be valid without the intervention of any transfer man or transfer agent, and the portion of Section 5 of an ordinance passed by the city council of the city of Galveston on December 17th, 1900, entitled, "Grant to Charles F. Hotchkiss, purchaser of the Galveston City Railroad Company" which said portion reads as follows: "And from the first day of September of each year there shall be established by the owners of said street railroad a station at some place to be designated by them on the street known as Twenty-first or Center, street, where transfers without additional charge shall be furnished between the hours of 5 o'clock p. m. until the cars stop running for the day to all purchasers traveling to or from the beach", is hereby expressly repealed.

Adopted October 6th, 1904.

That the said Galveston City Railway Company thereupon duly accepted the terms and provisions of said franchises and entered into possession of the rights, privileges and franchises granted thereby.

That in or about the year 1905 the said Galveston City Railway Company sold, assigned and transferred to the plaintiff, Galveston Electric Company, all of its right, title, interest and claims in and to the said several franchises granted by the defendant, City of Galveston, to the said Charles F. Hotchkiss and Galveston City Railway Company hereinbefore set forth, together with all and 38 singular the property and lines of street railway then being operated and managed by said Galveston City Railway Company in the City of Galveston, and thereupon the plaintiff became the owner thereof, subject to all the terms and conditions in said franchises and grants mentioned. That the charter of the city of Galveston granted to it by the legislature of the State of Texas contained the following provisions relating to the granting of franchises, the forfeiture thereof, regulation and control, and terms and conditions relating to the rates of fares and charges, as provided by section 45 of said charter, of which the following is a copy, to-wit:

"Sec. 45. No franchise or right in relation to any highway, avenue, street, lane or alley, either on, above or below the surface of the same, and no franchise or right in relation to any island or land covered by water that may belong to or be claimed by the City of Galveston, shall be granted by the Board of Commissioners to any person or corporation for a longer period than fifty (50) years. Every grant of any such franchise or right shall make provision by way of forfeiture of the grant or otherwise for the purpose of compelling compliance with the terms of the grant, and to secure efficiency of public service at reasonable rates, and the maintenance of the property in good condition throughout the full term of the grant. Before any grant of any such franchise or right shall be made the proposed specific grant, embodied in the form of a brief advertisement prepared as may be directed by ordinance of the Board of Commissioners, shall be published at the expense of the applicant for at least three (3) days in the official journal of said city. When the grant of any franchise or right is made, the city shall not part with, but shall expressly reserve, the right and duly at all times to exercise in the interest of the public full superintendence, regulation and control in respect to all matters connected with the police powers of said city. Before any such grant of any such franchise or right shall be made, the proposed specific grant shall be embodied in the form of an ordinance, with all such terms and conditions as may be right and proper, including a provision as to the rates, fares and charges, if the grant provides for the charging of rates, fares and charges. All legal ordinances, resolutions or acts heretofore passed or had by the said city, makeing any grant or concession, or vesting any property, right, interest or franchise, shall remain unaffected by the repeal of the charter of said city and amendments thereto hereinafter provided for. Any and all rights, privileges and franchises heretofore or hereafter granted to or held by any person, firm or corporation in the streets, alleys, highways or public grounds or places in said city shall be subject to taxation by said city separately from and in addition to the other assets of such person, firm or corporation, and the Board may require the rendition and assessment thereof accordingly; Provided, that no assessment separately for franchises, rights or privileges shall be made prior to January 1, 1905."

39 That on or about the 12th day of April, 1906, the Defendant, City of Galveston, granted, by ordinance, to the Plaintiff, Galveston Electric Company, certain rights, privileges, and franchises to own, construct, repair, maintain and operate an electric street railway upon, across and along certain streets and avenues in the City of Galveston, and that the following is a copy of said ordinance, viz:

40 Grant to Galveston Electric Company.

Section 1. That there be and is hereby granted to the Galveston Electric Company, a corporation duly and legally incorporated and existing under and by virtue of the laws of the State of Texas, the right, privilege and franchise to own, construct, repair, maintain and operate an electric street railway for the term of fifty years from and after the 17th day of December, 1900, on, upon, across and along the hereinafter specified streets and avenues in the city of Galveston, Texas, and to own, construct, repair, maintain and operate during the said term all curves, crossovers, switches and connections necessary for the convenient operation thereof, according to the blue print map hereto attached and made a part of this grant.

On Avenue R, a double track from connections near the west line of Forty-first street with the said Galveston Electric Company's tracks now on said Avenue R at that point, eastwardly to a point on said Avenue R east of the east line of Twenty-sixth street, curving thence northeastwardly to the north line of Avenue R between Twenty-fifth and Twenty-sixth streets.

On Thirty-third street, a double track from connections near the north line of Avenue Q with said Galveston Electric Company's tracks now on said Thirty-third street at that point, southwardly to and curving into Avenue R.

On Twenty-fifth street, a double track from connections near the north side of way on said Twenty-fifth street at that point, southwardly to a point on said Twenty-fifth street south of the south line of Avenue Q½, curving thence southwestwardly to the west line of said Twenty-fifth street at a point between Avenues Q½ and R

Sec. 2. This grant is made subject to all the conditions and limitations contained in an ordinance passed December 17th, 1900, entitled "An ordinance granting to Chas. F. Hotchkiss, the purchaser thereof under decrees of the circuit court of the United States, and

to his assigns and to any corporation that may be organized
41 under the laws of Texas by him or his associates and assigns
for that purpose, the right, power, privilege and franchise of owning, maintaining and operating the street railways, with the rights, privileges, franchises and other property appertaining thereto, heretofore owned and operated by the Galveston City Railroad Company and by the Gulf City Street Railway and Real Estate Company on, along and across certain streets and avenues in the city of Galveston, with the right to reconstruct the said properties and relocate portions of the tracks on other streets and avenues; extending and fixing the terms of such rights, franchises, and privileges, and specifying the terms and conditions of the rights, privileges and franchises hereby granted, and repealing all ordinances in conflict herewith", and all of the limitations and conditions contained in said ordinance shall extend and apply to the grant hereby made to the same extent as though this grant had been made specifically by and in said ordinance.

Sec. 3. That all work done under this ordinance shall be done in such a manner and within such time that the use of the streets shall not be interfered with, and any pavement or any part of any street, alley or other ground disturbed in the progress of such work shall be restored at the expense of the said grantee in such manner as shall be acceptable to the city engineer of said city.

Sec. 4. That all work of construction, maintenance and repair done under this ordinance shall be performed under the direction, supervision and control of and to the satisfaction and approval of the city engineer of said city, or other official or officials of said city who may be charged with such direction, supervision and control, and so as not to interfere with or hinder the drainage of said city, the right being hereby reserved to the said city of Galveston to remove or cause to be removed at the expense of the grantee herein any structure constructed under this ordinance whenever, in the judgment of the board of commissioners, or other government
of the said city, it shall become expedient or necessary to do
42 so, and all the property, structures and appliances constructed, provided, used or employed under this ordinance shall always be maintained in good, serviceable and safe condition.

Sec. 5. That said city of Galveston does not part with but expressly reserves the right, and duty, to, at all times, exercise in the interest of the public full superintendence, regulation and control, in every respect, over the rights, privileges and permission hereby granted, and especially in all matters connected with the police powers of said city, and from time to time may restrict or modify the terms or conditions upon which the same may be used or continued, or revoke the same, according to the demands of the public safety, and in case any of the conditions and terms of this ordinance or of any other ordinance, rule, regulation or provision theretofore or hereafter enacted for observance in the constuction, maintenance or use of the property hereby permitted to be constructed, maintained or used, shall be violated and not complied with, then and in such event, the board of commissioners, or other government of said city of Galveston, may, by ordinance or other act, declare or cause to be forfeited all the grants hereby made, or otherwise compel compliance with the terms of this ordinance and the maintenance of said property in good condition through the full term of the grant hereby made.

Sec. 6. That no permission, privilege or right by this ordinance granted, shall be transferred, assigned or let to any person or corporation without the assent of the city of Galveston being first obtained by ordinance duly enacted, and any such transfer, assignment or letting shall be subject always to the terms and conditions of this ordinance and every other rule or regulation now in force or hereafter made upon the subject.

Adopted April 12th, 1906.

That the plaintiff, the Galveston Electric Company, accepted the terms and conditions of said ordinance and entered into possession of the rights, privileges and franchises granted thereby.

43 That on or about the 24th day of September, 1908, the defendant, City of Galveston, granted, by ordinance, to the plaintiff, Galveston Electric Company, the right of constructing, repairing, maintaining and operating an electric street railway, on, across, over and along certain streets and avenues in the City of Galveston therein described, and that the following is a copy of said ordinance, viz:

44 Grant to Galveston Electric Company to Lay Tracks.

Section 1. That there be and is hereby granted to the Galveston Electric Company the right, privilege and franchise of owning, constructing, repairing, maintaining and operating an electric street railway for the term of fifty years from and after the 17th day of December, 1900, upon, across, over and along the hereinafter specified streets and avenues in the city of Galveston, Texas, to-wit:

A double track beginning in Avenue T where the east line of Forty-first street would be if extended across said Avenue T, thence westwardly in said Avenue T across Forty-first and Forty-second streets to and into Forty-third street, curving southwardly at the intersection of Forty-third street and said Avenue T into said Forty-third street, thence southwardly in said Forty-third street to and into Avenue U and curving westwardly into Avenue U at the intersection of said Avenue U and said Forty-third street.

Sec. 2. This grant is made subject to all the conditions and limitations contained in an ordinance passed December 17, 1900, entitled "An ordinance granting to Charles F. Hotchkiss, the purchaser thereof, under decree of the circuit court of the United States, and to his assigns, and to any corporation that may be organized under the laws of Texas by him or his associates and assigns for

that purpose, the right, power, privilege and franchise of owning, maintaining and operating the street railways with the rights, privileges, franchises, and other property appertaining thereto, heretofore owned and operated by the Galveston City Railroad Company and by the Gulf City Street Railway and Real Estate Company on, along and across certain streets and avenues in the city of Galveston, with the right to reconstruct the said properties and relocate portions of the tracks on other streets and avenues; extending and fixing the the term of such rights, franchises and privileges and franchises
hereby granted, and repealing all ordinances in conflict here-
45 with," and all of the limitations and conditions contained
in said ordinances shall extend and apply to the grant hereby made to the same extent as though this grant had been made specifically by and in said ordinance.

Sec. 3. That all work done under this ordinance shall be done in such manner and within such time that the use of the streets shall not be interfered with, and any pavement or any other part of any street, alley or other ground disturbed in the progress of such work shall be restored at the expense of the said grantee in such manner as shall be acceptable to the city engineer of said city.

Sec. 4. That all work of construction, maintenance and repair done under this ordinance shall be performed under the direction, supervision and control and to the satisfaction and approval of the city engineer of said city, or the official or officials of said city who may be charged with such direction, supervision and control, and so as not to interfere with or hinder the drainage *or* said city, the right being hereby reserved to the said city of Galveston to remove or cause to be removed, at the expense of the grantee herein, any structure constructed under this ordinance whenever, in the judgment of the board of commissioners, or other government of said city, it shall become expedient or necessary to do so, and all the property, structures and appliances constructed, provided, used or employed under this ordinance shall always be maintained in good, serviceable and safe condition.

Sec. 5. That said city of Galveston does not part with but expressly reserves the right and duty to at all times exercise in the interest of the public full superintendence, regulation and control, in every respect over the rights, privileges and permission hereby granted, and especially in all matters connected with the police powers of said city, and from time to time may restrict or modify the terms or conditions upon which the same may be used or continued, or revoke the same, according to the demands of the public safety, and in case any of the conditions and terms of this ordinance,
or of any other ordinance rule, regulation or provision hereto-
46 fore or hereafter enacted for observance in the construction,
maintenance or use of the property hereby permitted to be constructed, maintained or used, shall be violated and not complied with, then and in such event, the board of commissioners, or other government of said city of Galveston, may, by ordinance, or other act, de-

clare or cause to be forfeited all the grants hereby made, or otherwise compel compliance with the terms of this ordinance and the maintenance of said property in good condition through the full term of the grant hereby made.

Sec. 6. That no permission, privilege or right by this ordinance granted shall be transferred, assigned or let to any person or corporation without the assent of the city of Galveston being first obtained by ordinance duly enacted, and any such transfer, assignment or letting shall be subject always to the terms and conditions of this ordinance and every other rule or regulation now in force or hereafter made upon the subject.

Sec. 7. Before any terms of this grant may be used or enjoyed by said Galveston Electric Company, it shall signify its agreement to and acceptance of this ordinance and all its terms in writing, properly signed by its authorized manager, which acceptance shall be deposited with the city secretary of the city of Galveston within sixty (60) days from and after the date of the passage of this ordinance.

Sec. 8. This grant hereby made is made and done with the express stipulation and agreement by said Galveston Electric Company that said Galveston Electric Company by its acceptance of this ordinance, shall and does abandon and surrender to said city of Galveston the hereinafter described right, privilege and franchise granted to its assignor the Galveston City Railway Company, by an ordinance passed and adopted by the board of commissioners of said city of Galveston at a meeting of said board held October 6th, 1904, entitled "An ordinance granting to the Galveston City Railway Company, the right, privilege and franchise of owning, constructing, repairing, maintaining and operating a street railway upon, across
47 and along certain streets in the city of Galveston, as hereinafter specified, and of owning, constructing, repairing, maintaining and operating curves and connections on its line, and providing for a system of transfers and for the use, by the city of Galveston, of the poles of said railway company," which said right privilege and franchise of owning, constructing, repairing, maintaining and operating a street railway for the term of fifty years from and after the 17th day of December, 1900, upon, across and along the hereinafter specified street and avenue in the city of Galveston, Texas, to-wit: On Forty-first street from Avenue T to Avenue U, a double track, and on Avenue U from Forty-first street to Forty-third street, a double track; but it is hereby expressly stipulated provided and agreed by and between the city of Galveston and said Galveston Electric Company that none of the other rights, privileges and franchise granted to said Galveston Electric Company's assignor and Galveston City Railway Company, by said ordinance so passed and adopted October 6th, 1904, shall be in any wise impaired by this ordinance, nor shall the acceptance of this ordinance by said Galveston Electric Company operate or be constructed or considered as an abandonment or surrender of any of said other

rights, privileges and franchises, but the same shall be and remain in full force, virtue and effect.

Approved September 24, 1908.

That subsequent to the enactment of said ordinance, the plaintiff signified its agreement to and acceptance thereof and all its terms, in writing, properly signed by its authorized manager, which acceptance was deposited with the City Secretary of the City of Galveston; and thereupon the plaintiff entered into the use and enjoyment of the rights, privileges and franchises thereby granted.

That on or about the 3rd day of December, 1908, the defendant, City of Galveston, granted, by ordinance to the plaintiff, Galveston Electric Company, certain right, privilege and franchise to 48 own, construct, repair and maintain an electric street railway upon, across, over and along certain streets and avenues in the City of Galveston therein specified and described, and that the following is a copy of said ordinance, to-wit:

49 Grant to Galveston Electric Company to Lay Tracks.

Section 1. That there be and is hereby granted to the Galveston Electric Company the right, privilege and franchise to own, construct, repair, maintain and operate an electric street railway for the term of fifty years from and after the 17th day of December, 1900, upon, across, over and along the hereinafter specified streets and avenues in the city of Galveston, Texas, to-wit:

A single track on Avenue O from Twenty-seventh street westwardly to a point in said Avenue O where the west line of Twenty-ninth street would be if extended across said Avenue O, with all necessary connecting curves.

A single track in Avenue M from Twenty-ninth street westwardly to Forty-first street, with all necessary connecting curves.

Sec. 2. This grant is made subject to all the conditions and limitations contained in an ordinance passed December 17, 1900, entitled "An ordinance granting to Charles P. Hotchkiss, the purchaser thereof, under decrees of the circuit court of the United States, and to his assigns, and to any corporation that may be organized under the laws of Texas by him or his associates and assigns for that purpose, the right, power, privilege and franchise of owning, maintaining and operating the street railways, with the rights, privileges, franchises and other property appertaining thereto, heretofore owned and operated by the Galveston City Railroad Company and by the Gulf City Railway and Real Estate Company, on, along and across certain streets and avenues in the city of Galveston, with the right to reconstruct the said properties and relocate portions of the tracks on other streets and avenues; extending and fixing the term of such rights, franchises and privileges and franchises hereby granted and repealing all ordinances in conflict herewith", and all of the limitations and conditions contained in said ordinance shall extend and apply to the grant hereby made to the same extent as though this grant had been made specifically by and in said ordinance.

50 Sec. 3. That all work done under this ordinance shall be done in such a manner and within such time that the use of the streets shall not be interferred with, and any pavement or any other part of any street, alley or other ground disturbed in the progress of such work shall be restored at the expense of the said grantee in such manner as shall be acceptable to the city engineer of said city.

Sec. 4. That all work of construction, maintenance and repair done under this ordinance shall be performed under the direction, supervision and control of and to the satisfaction and approval of the city engineer of the said city, or other official or officials of said city who may be charged with such direction, supervision, and control, and so as not to interfere with or hinder the drainage of said city, the right being hereby reserved to the said city of Galveston to remove, or cause to be removed, at the expense of the grantee herein, any structure constructed under this ordinance whenever, in the judgment of the board of commissioners, or other government of the city, it shall become expedient or necessary to do so, and all the property, structures and appliances constructed, provided, used or employed under this ordinance shall always be maintained in good serviceable and safe condition.

Sec. 5. That said city of Galveston does not part with, but expressly reserves the right and duty to at all times exercise in the interest of the public full superintendence, regulation and control, in every respect over the rights, privileges and permission hereby granted and especially in all matters connected with the police powers of said city, and from time to time may restrict or modify the terms or conditions upon which the same may be used or continued, or revoke the same, according to the demands of the public safety, and in case any of the conditions and terms of this ordinance, or of any other ordinance, rule, regulation or provision heretofore or hereafter enacted for observance in the construction, maintenance or use of the property, hereby permitted to be constructed, maintained and used, shall be violated and not complied with,
51 then and in such event, the board of commissioners, or other government of said city of Galveston, may, by ordinance, or other act, declare or cause to be forfeited all the grants hereby made, or otherwise compel compliance with the terms of this ordinance and the maintenance of said property in good condition through the full term of the grant hereby made.

Sec. 6. That no permission, privilege or right by this ordinance granted shall be transferred, assigned or let to any person or corporation without the assent of the city of Galveston being first obtained by ordinance duly enacted, and any such transfer, assignment or letting shall be subject always to the terms and conditions of this ordinance and every other rule or regulation now in force or hereafter made upon the subject.

Sec. 7. Before any terms of this grant may be used or enjoyed by said Galveston Electric Company, *if* shall signify its agreement to and acceptance of this ordinance and all its terms in writing, properly signed by its authorized manager, which acceptance shall be deposited with the city secretary of the city of Galveston within sixty (60) days from and after the date of the passage of this ordinance.

Sec. 8. This grant is hereby made and done with the express stipulation and agreement that said Galveston Electric Company by its acceptance of this ordinance, shall and does abondon and surrender to said city of Galveston the right, privilege and franchise heretofore granted by said city of Galveston to Charles F. Hotchkiss, and to his assigns and to any corporation organized under the laws of the state of Texas by him or his associates or assigns, and to the successors or assigns of any such corporation (which said right, privilege and franchise was so granted by said ordinance adopted by the city council of the city of Galveston on, to-wit, December 17th, 1900, and entitled as set out in preceding Section 2 of
52 this ordinance, and of which said right, privilege and franchise said Galveston Electric Company is now the owner) of acquiring, owning, repairing, maintaining, and operating a street railway with the rights, privileges and franchises appertaining thereto, on Avenue L in said city of Galveston a single track from Twenty-second street to Fortieth street; and on Twenty-seventh street in said city of Galveston a double track from Avenue O to Avenue R with a double track connecting curve from west to south and another double track connecting curve from north to east at Avenue Q; and on Twenty-ninth street in said city of Galveston a single track from Avenue M to Avenue O, with a single track connecting curve from north to west at Avenue O.

But it is expressly stipulated, provided and agreed by and between said city of Galveston and said Galveston Electric Company that none of the other rights, privileges and franchises granted by said ordinance so adopted on, to-wit, December 17th, 1900, shall be in any wise impaired by this ordinance, nor shall the acceptance of this ordinance by said Galveston Electric Company operate or be construed or considered as abandonment, surrender or impairment of any of said other rights, privileges and franchises, but the same shall be and remain in full force, virtue and effect.

Sec. 9. That by its acceptance of this ordinance, said Galveston Electric Company binds and obligates itself to remove all its tracks, rails, ties, street railway poles and trolley wires and supports from said Avenue L between said Twenty-second Street and Fortieth Street within thirty days from and after the date of the passage of this ordinance and from all other parts of its lines abondoned and surrendered by this ordinance, within four months from and after the date of the passage of this ordinance, failing in which the said

city of Galveston shall have the right, after thirty days' written notice to said Galveston Electric Company of its intention so to do, to cause the same to be removed at the expense of said Galveston Electric Company, all said track, rails, ties, street railway
53 poles, trolley wires and supports, to be and remain, however, the property of said Galveston Electric Company.

Section 10. And by its acceptance of this ordinance said Galveston Electric Company binds and obligates itself that when it removes its track, rails, ties, street railway poles, trolley wires and supports mentioned in preceding Section 9 of this ordinance from those parts of its lines abondoned and surrendered by this ordinance, that it will repair and replace all those parts of the streets and sidewalks from which its said property is removed in as good and safe condition as the same were in before such removal, and all such parts of said streets and sidewalks as are shell-filled or paved at the time of such removal shall be by said Galveston Electric Company replaced and conditioned with similar shell-filling or paving, as may be directed by the city engineer of said city of Galveston, failing in which said city of Galveston shall have the right to cause said parts of said streets and sidewalks to be so replaced and conditioned at the expense of said Galveston Electric Company after thirty days' written notice to said Galveston Electric Company of its intention so to do.

Sec. 11. And by its acceptance of this ordinance, said Galveston Electric Company binds and obligates itself that it shall and will, at its own expense, pave said Avenue M from Twenty-ninth street to the west side of Forty-first street the width of said Avenue M from curb line to curb line, and in like manner that it shall and will pave said Avenue O from Twenty-seventh street to Twenty-ninth street the width of said Avenue O from curb line to curb line, all said paving to be done with mudshell and to be done as directed by and to the satisfaction of the city engineer and commissioner of streets and public property of said city of Galveston, but said Galveston Electric Company shall have the benefit of such paving as is now in said Avenue M between Twenty-ninth street and Thirty-third street and in said Avenue O between Twenty-seventh street and Twenty-ninth street, and said paving so to
54 be done by said Galveston Electric Company in said Avenue M shall not be done until the drain which said city now contemplates constructing in said Avenue M shall have been completed or its construction definitely abondoned, and said paving so to be done by said Galveston Electric Company in said Avenue O shall be done contemporaneously with the construction of said Galveston Electric Company's street railway track therein; and if said Galveston Electric Company fails to construct any of said mudshell paving as aforesaid, then said city of Galveston shall have the right, after thirty days' written notice to said Galveston Electric Company of its intention so to do, to cause the said paving to be constructed at the expense of said Galveston Electric Company.

Adopted December 3, 1908.

55 That subsequent to the enactment thereof, the Plaintiff, Galveston Electric Company, signified its agreement to and acceptance thereof and all its terms, in writing, properly signed by its authorized manager, which acceptance was deposited with the city Secretary of the City of Galveston, and thereupon and thereafter the Plaintiff entered into possession of the rights, privilege and franchise granted thereby.

That on or about the 21st day of January, 1909, the Defendant, City of Galveston, granted, by ordinance, to the Plaintiff, Galveston Electric Company, the right, privilege and franchise to own, construct, repair and maintain a double track electric street railway upon, on, across and over certain streets and avenues in said City, and that the following is a copy of said ordinance, to-wit:

56 Grant to Galveston Electric Company.

Section 1. That there be and is hereby granted to the Galveston Electric Company the right, privilege and franchise to own, construct, repair and maintain for and during the term beginning on the date of the passage of this ordinance and ending December 1st, 1950, a double track electric street railway upon, across, over and along Avenue J, in the city of Galveston, Texas, from the present western terminus of said Galveston Electric Company's street railway tracks on said Avenue J near Fortieth street, to the western corporate limits of said city of Galveston, with all necessary crossovers, and for and during said term to operate thereon electric street cars and to permit the Galveston-Houston Electric Railway Company to operate interurban electric cars thereon, said tracks to be constructed and maintained in and along the center of said Avenue J.

Sec. 2. That there be and is hereby granted to the Galveston Electric Company the right, privilege and franchise to own, construct, repair and maintain for and during the term beginning on the date of the passage of this ordinance and ending December 1st, 1950, a double track electric street railway upon, across, over and along Avenue R in the city of Galveston, from the present western terminus of said Galveston Electric Company's street railway tracks in said Avenue R near Fifty-third street to the western corporate limits of the city of Galveston, with all necessary crossovers, and for and during said term to operate thereon electric street cars and to permit the Galveston-Houston Electric Railway Company to operate thereon interurban electric cars.

Sec. 3. This grant is made subject to all the conditions and limitations contained in an ordinance passed December 17th, 1900, entitled: "An ordinance granting to Chas. F. Hotchkiss, the purchaser thereof, under decrees of the circuit court of the United States, and to his assigns, and to any corporation that may be organized
57 under the laws of Texas by him or his associates and assigns for that purpose, the right, power, privilege and franchise of owning, maintaining and operating the street railway, with the rights, privileges, franchises and other property appertaining thereto,

heretofore owned and operated by the Galveston City Railroad Company and by the Gulf City Railway and Real Estate Company, on, along and across certain streets and avenues in the city of Galveston, with the right to reconstruct the said properties and relocate portions of the tracks on other streets and avenues; extending and fixing the term of such rights, franchises and privileges *and franchises* hereby granted, and repealing all ordinances in conflict herewith," and all of the limitations and conditions contained in said ordinance shall extend and apply to the grant hereby made to the same extent as though this grant had been made specifically by and in said ordinance.

Sec. 4. That all work done under this ordinance shall be done in such manner and within such time that the use of the streets shall not be interfered with, and any pavements and any other part of any street, alley or other ground disturbed in the progress of such work shall be restored at the expense of said Galveston Electric Company in such manner as shall be acceptable to the city engineer of said city.

Sec. 5. That all work of construction, maintenance and repair done under this ordinance shall be performed under the direction, supervision and control of and to the satisfaction and approval of the city engineer of said city or other official or officials of said city who may be charged with such direction, supervision and control, and so as not to interfere with or hinder the drainage of said city, the right being hereby reserved to the said city of Galveston to remove, or cause to be removed, at the expense of the grantee herein, any structure constructed under this ordinance whenever necessary to do so for the public safety, and all the property, structures and appliances constructed, used or employed under this ordinance shall always be maintained in good and safe condition.

58 Sec. 6. That said city of Galveston does not part with, but expressly reserves the right and duty, to at all times exercise in the interest of the public full superintendence, regulation and control, in every respect, over the rights, privileges and permission hereby granted, and especially in all matters connected with the police powers of said city, and from time to time may restrict or modify the terms or conditions upon which the same may be used or continued, or revoke the same, according to the demands of the public safety, and in case any of the conditions and terms of this ordinance, or of any other ordinance, rule, regulation or provision heretofore or hereafter enacted for observance in the construction, maintenance or use of the property hereby permitted to be constructed, maintained and used, shall be violated and not complied with, then and in such event, the board of commissioners or other government of said city, may, by ordinance, or other act, declare or cause to be forfeited all the grants hereby made, or otherwise compel compliance with the terms of this ordinance and the maintenance of said property in good condition through the full term of the grant hereby made.

Sec. 7. That no permission, privilege, or right by this ordinance granted shall be transferred, assigned or let to any person or corporation without the assent of the city of Galveston being first obtained by ordinance duly enacted, and any such transfer, assignment, or letting shall be subject always to the terms and conditions of this ordinance and every other rule or regulation now in force or hereafter made upon the subject.

Sec. 8. In event at any time hereafter during the continuance of this franchise, the city of Galveston shall surface Avenue J from Fortieth street to the western corporate limits of said city for the whole or any part of said distance, with mudshell or crushed rock, then said Galveston Electric Company shall and will and by
59 its acceptance of this ordinance binds and obligates itself to
surface at its own cost and expense, with the same material so used by said city, between its rails and between its street railway tracks *land* and constructed and to be laid and constructed upon, over, in and along said Avenue J from Fortieth street westwardly, for such distance as said city of Galveston shall so surface said Avenue J.

Sec. 9. Before any terms of this grant may be used or enjoyed by said Galveston Electric Company it shall signify its agreement to and acceptance of this ordinance and all its terms in writing, properly signed by its authorized manager, which acceptance shall be deposited with the city secretary of the city of Galveston within sixty (60) days from and after the date of the passage of this ordinance.

Sec. 10. This ordinance shall take effect and be in force from and after its passage, provided the same is accepted in accordance with the requirements of Section 9 of this ordinance.

Adopted Jan. 21, 1909.

That the plaintiff, the Galveston Electric Company, signified its agreement to and acceptance of said ordinance in all its terms, in writing, properly signed by its authorized manager, which acceptance was deposited with the City Secretary of the City of Galveston, and thereupon the plaintiff entered into possession of the rights, privileges and franchises therein granted.

That on or about the 8th day of September, 1910, the defendant, City of Galveston, granted, by ordinance, to the plaintiff, Galveston Electric Company, the right, privilege, and franchise to own, construct, repair and maintain an electric street railway upon certain streets and avenues in the city of Galveston, and that the following is a copy of said ordinance, to-wit:

60 Grant to Galveston Electric Company.

Section 1. That there be and is hereby granted to the Galveston Electric Company the right, privilege and franchise to own, construct, repair and maintain for and during the term beginning on the date of the passage of this ordinance and ending December 1st, 1950, an electric street railway and electric street railway tracks upon, across, over and along the hereinafter specified streets and avenues and parts of streets and avenues in the city of Galveston, Texas, and for and during said term to operate thereon electric street cars, and to permit the Galveston-Houston Electric Company to operate interurban electric cars thereon, to wit:

A single track beginning at a connection with said Galveston Electric Company's street railway tracks on Avenue J, at a point near and west of Twenty-fifth street, thence curving southwardly upon, over, along and across said Avenue J and said Twenty-fifth street to a connection with said Galveston Electric Company's street railway tracks on said Twenty-fifth street at a point near and south of said Avenue J.

A single track beginning at a connection with said Galveston Electric Company's street railway tracks on Avenue J, at a point near and west of Fortieth street, thence curving southwardly upon, over, along and across said Avenue J and said Fortieth street to a connection with said Galveston Electric Company's street railway tracks on said Fortieth street at a point near and south of said Avenue J.

A single track beginning at a connection with said Galveston Electric Company's street railway tracks on Avenue J, at a point near and east of Fifty-first street, thence in a generally southwestwardly direction upon, over, along and across said Avenue J and said Fifty-first street to an intersection with the east property line of block 6 of the Denver resurvey, according to the map or plan of said Denver resurvey, recorded in the deed records of Galveston County, Texas, at a point near and southwardly from the northeast corner of said block 6.

61 A single track beginning at a connection with said Galveston Electric Company's street railway tracks on Avenue J, at a point near and west of Fifty-second street, thence in a generally southeastwardly direction upon, over, along and across said Avenue J and said Fifty-second street to an intersection with the west property line of block 6 of the Denver resurvey, according to the map or plain of said Denver resurvey, recorded in the deed records of Galveston County, Texas, at a point near and southwardly from the northwest corner of said block 6.

One or more tracks upon, over, along and across Avenue K between the south property line of block 6 of the Denver resurvey, according to the map or plan or said Denver resurvey, recorded in the deed records of Galveston County, Texas, and the north property line in block 19 of said Denver resurvey, according to said map or plan thereof.

A single track beginning at a connection with said Galveston Electric Company's street railway tracks on Twenty-first street at a point near and north of Church street or Avenue F, thence curving westwardly along, over, upon and across said Twenty-first street to an intersection with the east property line of lot 8 in block 441, according to the map or plan of said city of Galveston in common use, between the northeast corner of said lot 8 and a point on said east property line of said lot 8, 60 feet southwardly from said northeast corner of said lot.

A single track beginning at a connection with said Galveston Electric Company's street railway tracks on Twenty-first street at a point near and south of Postoffice street or Avenue E, thence curving westwardly upon, over, along and across said Twenty-first street to an intersection with the east property line of lot 8, in block 441, according to the map or plan of said city of Galveston in common use between the northeast corner of said lot 8 and a point on said east property line of said lot 8, 60 feet southwardly from said northeast corner of said lot.

62 A double track beginning at connections with said Galveston Electric Company's street railway tracks on Avenue R, at or near the intersection of said Avenue R and Twenty-ninth street, thence curving northwardly into said Twenty-ninth street, and thence over, upon, along and across said Twenty-ninth street to and into Avenue Q and curving eastwardly on said Avenue Q and thence upon, over, along and across said Avenue Q to connections with said Galveston Electric Company's street railway tracks on said Avenue Q at or near the intersection of said Avenue Q and Twenty-seventh street.

Sec. 2. This grant is made subject to all the conditions and limitations contained in an ordinance passed December 17, 1900, entitled "An ordinance granting to Charles F. Hotchkiss, the purchaser thereof, under decrees of the circuit court of the United States, and to his assigns, and to any corporation that may be organized under the laws of Texas by him or his associates and assigns for that purpose, the right, power, privilege and franchise of owning, maintaining and operating the street railways, with the rights, privileges, franchises and other property appertaining thereto, heretofore owned and operated by the Galveston City Railway Company and by the Gulf City Street Railway and Real Estate Company on, along and across certain streets and avenues in the city of Galveston, with the right to reconstruct the said properties and relocate portions of the tracks on other streets and avenues; extending and fixing the term of such rights, franchises, and privileges and franchises hereby granted, and repealing all ordinances in conflict herewith" and all of the limitations and conditions contained in said ordinance shall extend and apply to the grant hereby made to the same extent as though this grant had been made specifically by and in said ordinance.

Sec. 3. That all work done under this ordinance shall be done in such manner and within such time that the use of the streets shall not be interfered with, and any pavement or any other part 63 of any street, alley or other ground disturbed in the progress of such work shall be restored at the expense of the said grantee in such manner as shall be acceptable to the city engineer of said city.

Sec. 4. That all work of construction, maintenance and repair done under this ordinance shall be performed under the direction, supervision and control of and to the satisfaction and approval of the city engineer of said city, or other official or officials of said city who may be charged with such direction, supervision and control, and so as not to interfere with or hinder the drainage of said city, the right being hereby reserved to the said city of Galveston to remove, or cause to be removed, at the expense of the grantee herein, any structure constructed under this ordinance whenever, in the judgment of the board of commissioners or other government of said city, it shall become expedient or necessary to do so, and all the property, structures and appliances constructed, provided, used or employed under this ordinance shall always be maintained in good, serviceable and safe condition.

Sec. 5. That said city of Galveston does not part with but expressly reserves the right and duty to at all times exercise in the interest of the public full superintendence, regulation and control, in every respect, over the rights, privileges and permission hereby granted, and especially in all matters connected with the police powers of said city, and from time to time may restrict or modify the terms or conditions upon which the same may be used or continued, or revoke the same, according to the demands of the public safety, and in case any of the conditions and terms of this ordinance, or of any other ordinance, rule, regulation or provision heretofore or hereafter enacted for observance in the construction, maintenance or use of the property hereby permitted to be constructed, maintained and used, shall be violated and not complied with, then in such event, the board of commissioners or other government of said city of Galveston, may, by ordinance, or other act, declare or cause to be forfeited all the grants hereby made, or otherwise compel
64 compliance with the terms of this ordinance and the maintenance of said property in good condition through the full term of the grant hereby made.

Sec. 6. That no permission, privilege or right by this ordinance granted shall be transferred, assigned or let to any person or corporation without the assent of the city of Galveston being first obtained by ordinance duly enacted and any such transfer, assignment or letting shall be subject always to the terms and conditions of this ordinance and every other rule or regulation now in force or hereafter made upon the subject.

Sec. 7. The grant hereby made is made and done with the expressed stipulation and agreement by said Galveston Electric Company that said Galveston Electric Company shall, and by its acceptance of this ordinance does, abandon and surrender to said city of Galveston the hereinafter described right, privilege and franchise granted to it by an ordinance passed and adopted by the board of commissioners of said city of Galveston April 12, 1906, entitled "An ordinance granting to the Galveston Electric Company the right, privilege and franchise to own, construct, repair, maintain and operate an electric street railway upon, across and along certain streets in the city of Galveston, as hereinafter specified, together with all curves, crossovers, switches and connections necessary and convenient to the operation of same", which said right, privilege and franchise so abandoned and surrendered consists of the right, privilege and franchise to own, construct, repair, maintain and operate a double track electric street railway for the term of fifty years from and after the 17th day of December, 1900, on, upon, across and along Avenue R in said city of Galveston from connection near the west line of Forty-first street with the said Galveston Electric Company's tracks on said Avenue R at a point eastwardly to Thirty-third street and from the intersection of Twenty-ninth street and Avenue R eastwardly on, upon, across and along said Avenue R to a point on said Avenue R east of the east line of Twenty-sixth street, and curving thence northeastwardly to the north line of Avenue 65 R between Twenty-fifth and Twenty-sixth streets; and said grant hereby made is made and done with the further express stipulation and agreement by said Galveston Electric Company that said Galveston Electric Company shall, and by its acceptance of this ordinance does abandon and surrender to said city of Galveston the hereinafter described right, privilege and franchise granted to it by an ordinance passed and adopted by the board of commissioners of said city of Galveston January 21st, 1909, entitled "An ordinance granting to the Galveston Electric Company the right, privilege, and franchise to own, construct, repair and maintain an electric street railway upon, along and across certain streets and avenues in the city of Galveston, Texas, as hereinafter specified, and to operate an electric street railway thereon and to permit the Galveston-Houston Electric Railway Company to operate interurban cars thereon", which said right, privilege and franchise so abandoned and surrendered consists of the right, privilege and franchise to own, construct, repair and maintain for and during the term beginning on the date of the passage of said ordinance and ending December 1, 1950, a double track electric street railway upon, across, over and along Avenue R in said city of Galveston from the western terminus of said Galveston Electric Company's street railway tracks on said Avenue R near Fifty-third street to the western corporate limits of the city of Galveston, with all necessary crossovers, and for and during said term to operate thereon electric street cars, and to permit the Galveston-Houston Electric Railway Company to operate thereon interurban electric cars; but it is hereby expressly stipulated, provided and agreed by and between said city of Galveston, and said Galveston Electric Company that none of the other rights, privileges and franchises granted to said Galveston Electric Company by said ordinances so passed and adopted April 12, 1906, and January 21, 1909, shall be in anywise impaired or affected by this ordinance, nor shall the acceptance of this ordinance by said Galveston Electric Company operate or be construed as an abandonment or surrender of said other rights, privileges and franchises but the same 66 shall be and remain in full force, virtue and effect.

Sec. 8. Before any of the terms of the grant hereby made may be used or enjoyed by said Galveston Electric Company, it shall signify its agreement to and acceptance of this ordinance and all its terms in writing, properly signed by its authorized representative, which acceptance shall be deposited with the city secretary of the city of Galveston within sixty days from and after the date of the passage of this ordinance.

Sec. 9. This ordinance shall take effect and be in force from and after its passage, provided the same is accepted in accordance with the requirements of Section 8 of this ordinance.

Adopted December 8, 1910.

67 That the Plaintiff, Galveston Electric Company signified its agreement to and acceptance of said ordinance and all its terms, in writing, properly signed by its authorized representative, which acceptance was deposi*tion* with the City Secretary of the City of Galveston.

That on or about the 13th day of March, 1913, the Defendant, City of Galveston, granted, by ordinance, to the Plaintiff, Galveston Electric Company, the right, privilege and franchise to lay, construct, own, repair and operate a street railway upon and along certain streets and avenues in the City of Galveston therein specified, and that the following is a copy of said ordinance, to-wit:

68 Grant to Galveston Electric Company.

Section 1. There is hereby granted to the Galveston Electric Company, a corporation, the right, privilege and franchise to lay, construct, own, repair, maintain and operate a street railway and street railway track for the term beginning on the date of the passage of this ordinance and ending on the first day of December, 1950, beginning at a connection with the track of said Galveston Electric Company in Avenue L at or near Seventeenth street; thence curving southwardly into said Seventeenth street to and into the intersection of said Seventeenth street and Avenue N½; thence curving eastwardly into said Avenue N½ and in, upon, over and along said Avenue N½ to and into the intersection of Avenue N½ and Thirteenth street; thence curving northwardly into said Thirteenth street and in, upon, over and along said Thirteenth street to and into the intersection of said Thirteenth street and said Avenue L, and thence curving into and connected with the track of said Galveston Electric Company in said Avenue L; together with all necessary and convenient curves, connections and turnouts.

Sec. 2. That grant is made subject to all conditions and limitations contained in an ordinance passed December 17th, 1900, entitled "An ordinance granting to Charles F. Hotchkiss, the purchaser thereof, under decree of the circuit court of the United States, and to his assigns, and to any corporation that may be organized under the laws of Texas by him or his associates or assigns for that purpose,

the right, power, privilege and franchise of owning, maintaining and operating the street railways, with rights, privileges, franchises and other property appertaining thereto, heretofore owned and operated by the Galveston City Railroad Company and by the Gulf City Street Railway and Real Estate Company on, along and across certain streets and avenues in the city of Galveston, with the right to reconstruct the said properties and relocate portions of the tracks on other streets and avenues; extending and fixing the term of such
rights, franchises and privileges and franchises hereby
69 granted, and repealing all ordinances in conflict herewith",
and all of the limitations and conditions contained in said ordinance shall extend and apply to the grant hereby made to the same extent as though this grant had been made specifically by and in said ordinance.

Sec. 3. That all work done under this ordinance shall be done in such manner and within such time that the use of the streets shall not be unnecessarily interfered with, and any pavement, or any other part of any street, alley or other ground disturbed in the progress of such work shall be restored at the expense of said grantee in such manner as shall be acceptable to the city engineer of said city.

Sec. 4. That all work of construction, maintenance and repair done under this ordinance shall be performed under the direction, supervision and control of and to the satisfaction and approval of the city engineer of said city, or other official or officials of said city who may be charged with such direction, supervision and control, and so as not to interfere with or hinder the drainage of the said city, the right being hereby reserved to the said city of Galveston to remove, or cause to be removed, at the expense of the grantee herein, any structures constructed under this ordinance whenever, in the judgment of the board of commissioners or other government of said city, it shall become expedient or necessary to do so, and all the property, structures and appliances constructed, provided, used or employed under this ordinance shall always be maintained in good, serviceable and safe condition.

Sec. 5. That said city of Galveston does not part with, but expressly reserve*d* the right and duty to at all times exercise in the interest of the public full superintendence, regulation and control, in every respect, over the rights, privileges and permission hereby
granted and especially in all matters connected with the
70 police powers of said city, and from time to time may restrict
or modify the terms or conditions upon which the same may be used or continued, or revoke the same, according to the demands of the public safety, and in case any of the conditions and terms of this ordinance, or of any other ordinance, rule, regulation or provision heretofore or hereafter enacted for observance in the construction, maintenance or use of the property hereby permitted to be constructed, maintained and used, shall be violated and not complied, then and in such event, the board of commissioners or other government of said city of Galveston, may, by ordinance, or other

act, declare or cause to be forfeited all the grants hereby made, or otherwise compel compliance with the terms of this ordinance and the maintenance of said property in good condition through the full term of the grant hereby made.

Sec. 6. That no permission, privilege or right by this ordinance granted shall be transferred, assigned or let to any person or corporation without the assent of the city of Galveston being first obtained by ordinance duly enacted, and any such transfer, assignment or letting shall be subject always to the terms and conditions of this ordinance and every other rule or regulation now in force or hereafter made upon the subject.

Sec. 7. Before any of the terms of this grant may be used or enjoyed by said grantee, it shall, in writing, signify its agreement to and acceptance of this ordinance and all its terms, which acceptance shall be deposited with the city secretary of the city of Galveston within sixty days after the date — passage of this ordinance.

Sec. 8. For the rights, privileges and franchises by this ordinance granted to said Galveston Electric Company, the said Galveston Electric Company agrees, undertakes, promises and obligates itself to make all reasonable efforts to maintain upon the portions of said Seventeenth Street, Avenue N½ and Thirteenth street in
71 this ordinance described, a schedule of twelve minutes between cars in both directions, and a more frequent service whenever the business justifies; and pay to the city of Galveston twenty-five hundred dollars to be used by said city in part payment of the cost and expense of paving any part or all of said portions of said Seventeenth and Avenue N½ and Thirteenth street with mud-shell from curb to curb whenever said city of Galveston shall so pave said portions of said streets and avenues, or part thereof, it being, however, hereby expressly stipulated and provided that said sum shall be exclusive of the cost and expense of paving the space between the rails of said track and one feet on the outside of said rails in said part or parts of said streets and avenue that shall be so paved by the city of Galveston, which said cost and expense is to be borne and paid by said Galveston Electric Company to said city of Galveston within thirty days after the completion of so much of said paving as will require said sum to pay therefor and upon the certificate of the city engineer of said city of such completion, said payment to be made to the tax collector of said city of Galveston and his receipt therefor to be a full acquittance to said Galveston Electric Company for all claims of the city of Galveston to said sum of twenty-five hundred dollars under this ordinance.

Sec. 9. This ordinance shall take effect and be in force upon and from and after its passage, provided it is accepted within the time and in the manner required by Section 7 hereof.

Adopted March 13, 1913.

That the Plaintiff, Galveston Electric Company, signified, in writing, its agreement to and acceptance of said ordinance and all its terms, which acceptance was deposited with the City Secretary of the City of Galveston.

72 That on or about the 3rd day of June 1915, the defendant, City of Galveston, granted, by ordinance, to the plaintiff, Galveston Electric Company, the right, privilege and franchise to lay, construct, own, repair, maintain and operate a street railway upon and along certain streets and avenues in the city of Galveston, and that the following is a copy of said ordinance, to-wit:

73 Grant of Right of Way to Galveston Electric Company.

Section 1. There is hereby granted to the Galveston Electric Company, a corporation, the right, privilege and franchise to *pay*, construct, own, repair, maintain and operate a street railway track and electric street railway for the term beginning on the date of the passage of this ordinance and ending on the 1st day of December 1950, beginning at a connection with the track of the said Galveston Electric Company in Thirty-seventh street, at or near the north side of Avenue T; thence curving westwardly into Avenue T and upon, in, over and along said Avenue T to the east side of Thirty-ninth street.

Section 2. This grant is made subject to all the conditions and limitations contained in an ordinance passed December 17, 1900, entitled "An ordinance granting to Charles F. Hotchkiss, the purchaser thereof, under decrees of the circuit court of the United States, and to his assigns, and to any corporation that may be organized under the laws of Texas by him or his associates and assigns for that purpose, the right, power, privilege and franchise of owning maintaining and operating the street railways, with the rights, privileges, franchises, and other property appertaining thereto, heretofore owned and operated by the Galveston City Railroad Company and by the Gulf City Street Railway and Real Estate Company on, along and across certain streets and avenues in the city of Galveston, with the right to reconstruct the said properties and relocate portions of the tracks on other streets and avenues; extending and fixing the term of such rights, franchises, and privileges and franchises hereby granted, and repealing all ordinances in conflict herewith" and all of the limitations and conditions contained in said ordinance shall extend and apply to the grant hereby made to the same extent as though this grant had been made specifically by and in said ordinance.

74 Sec. 3. That all work done under this ordinance shall be done in such manner and within such time that the use of the streets shall not be interferred with, and any pavement or any other part of any street, alley or other ground disturbed in the progress of such work shall be restored at the expense of said grantee in such manner as shall be acceptable to the city engineer of said city.

Sec. 4. That all work of construction, maintenance and repair done under this ordinance shall be performed under the direction, supervision and control of and to the satisfaction and approval of the city engineer of said city, or other official or officials of said city who may be in charge with such direction, supervision and control, and so as not to interfere with or hinder the drainage of said city, the right being hereby reserved to the said city oc Galveston to remove, or cause to be removed, at the expense of the grantee herein, any structure constructed under this ordinance whenever, in the judgment of the board of commissioners, or other government of said city, it shall become expedient or necessary to do so, and all the property, structures and appliances constructed, provided, used or employed under this ordinance shall always be maintained in good, serviceable and safe condition.

Sec. 5. That said city of Galveston does not part with, but expressly reserves the right and duty to at all times exercise in the interest of the public full superintendence, regulation and control, in every respect, over the rights, privileges and permission hereby granted, and especially in all matters connected with the police powers of said city, and from time to time may restrict of modify the terms or conditions upon which the same may be used or continued, or revoke the same, according to the demands of the public safety, and in case any of the conditions and terms of this ordinance or of any other ordinance, rule, regulation or provision heretofore or hereafter enacted for observance in the construction, maintenance
75 or use of the property hereby permitted to be constructed, maintained or used, shall be violated and not complied with, then and in such event, the board of commissioners, or other government of said city of Galveston, may, by ordinance, or other act, declare or cause to be forfeited all the grants hereby made, or otherwise compel compliance with the terms and — of this ordinance and the maintenance of said property in good condition through the full term of the grant hereby made.

Sec. 6. That no permission, privilege or right by this ordinance granted shall be transferred, assigned or let to any person or corporation without the assent of the city of Galveston being first obtained by ordinance duly enacted, and any such transfer, assignment or letting shall be subject always to the terms and conditions of this ordinance and every other rule or regulation now in force or hereafter made upon the subject.

Sec. 7. Before any of the terms of this grant may be used or enjoyed by said grantee, it shall, in writing, signify its agreement to and acceptance of this ordinance and all its terms, which acceptance shall be deposited with the city secretary of the city of Galveston within sixty days after the date of the passage of this ordinance.

Sec. 8. This ordinance shall take effect and be in force upon and from and after its passage, provided it is accepted within the time and in the manner required by said Section 7 hereof.

Adopted at regular meeting held June 3, 1915.

That the plaintiff, Galveston Electric Company, signified, in writing, its agreements to and acceptance of said ordinance in all its terms, which acceptance was deposited with the City Secretary of the City of Galveston.

76 That on or about the 16th day of September, 1915, the defendant, City of Galveston, by ordinance, granted to the plaintiff, Galveston Electric Company, the right, privilege, and franchise to own, construct, repair, maintain and operate an electric street railway upon and along certain specified streets and avenues in the City of Galveston, and that the following is a copy of said ordinance, to-wit:

77 Grant of Right of Way to Galveston Electric Company.

Section 1. That there be and is hereby granted to the Galveston Electric Company the right, privilege, and franchise to own, construct, repair, maintain and operate an electric street railway with appropriate tracks, poles, span wires and trolley wires for the term beginning with the passage of this ordinance and ending December 17th, 1950, upon, across, over and along the hereinafter specified streets and avenues in the city of Galveston, Texas, to-wit:

A single track beginning at a connection with said Galveston Electric Company's present track in Fifty-sixth street at or near the intersection of said Fifty-sixth street and Avenue V½; thence curving from east to south into said Avenue V½ and upon, across, over and along said Avenue V½, southwardly to Fifty-third street and there curving from north to east to a connection with said Galveston Electric Company's track now in said Fifty-third street near the intersection of said Fifty-third street and Avenue V½.

Sec. 2. This grant is made subject to all the conditions and limitations contained in an ordinance passed December 17th, 1900, entitled "An ordinance granting to Charles F. Hotchkiss, the purchaser thereof, under decrees of the circuit court of the United States, and to his assigns, and to any corporation that may be organized under the laws of Texas by him or his associates and assigns for that purpose, the right, power, privilege and franchise of owning, maintaining and operating the street railways, with the rights, privileges, franchises and other property appertaining thereto, heretofore owned and operated by the Galveston City Railway Company and by the Gulf City Railway and Real Estate Company on, along and across certain streets and avenues in the city of Galveston, with the 78 right to reconstruct the said properties, and relocate portions of the tracks on other streets and avenues; extending and fixing the terms of such rights, franchises and privileges and franchises hereby granted, and repealing all ordinances in conflict herewith," and all of the limitations and conditions contained in said ordinance shall extend and apply to the grant hereby made to the same extent as though this grant has been made specially by and in said ordinance.

Sec. 3. That all work done under this ordinance shall be done in such manner and within such time that the use of the streets shall not be interferred with, and any pavement or other part of any street, alley or other ground disturbed in the progress of such work shall be restored at the expense of the said grantee in such manner as shall be acceptable to the city engineer of said city.

Sec. 4. That all work of construction, maintenance and repair done under this ordinance shall be performed under the direction, supervision and control of and to the satisfaction and approval of the city engineer of said city, or other official or officials of said city who may be charged with such direction, supervision and control, and so as not to interfere with or hinder the drainage of said city, the right being hereby reserved to the said city of Galveston to remove, or cause to be removed, at the expense of the grantee herein, any structure constructed under this ordinance whenever, in the judgment of the board of commissioners, or other government of said city, it shall become expedient or necessary to do so, and all the property, structures and appliances constructed, provided, used or employed under this ordinance shall always be maintained in good, serviceable and safe condition.

Sec. 5. That said city of Galveston does not part with but expressly reserves the right and duty to at all times exercise in the interest of the public full superintendence, regulation and control, in every respect, over the rights, privileges and permission hereby granted, and especially in all matters connected with the police powers of 79 said city, and from time to time may restrict or modify the terms or conditions upon which the same may be used or continued, or revoke the same, according to the demands of the public safety, and in case any other ordinance, rule, regulation or provision heretofore or hereafter enacted for observance in the construction, maintenance or use of the property hereby permitted to be constructed, maintained and used, shall be violated and not complied with, then and in such event, the board of commissioners, or other government of said city of Galveston, may, by ordinance or other act, declare or cause to be forfeited all the grants hereby made, or otherwise compel compliance with the terms of this ordinance and the maintenance of said property in good condition through the full term of the grant hereby made.

Sec. 6. That no permission, privilege or right by this ordinance granted shall be transferred, assigned or let to any person or corporation without the assent of the city of Galveston being first obtained by ordinance duly enacted, and any such transfer, assignment or letting shall be subject always to the terms and conditions of this ordinance and every other rule or regulation now in force or hereafter made upon the subject.

Sec. 7. Before any terms of this grant may be used or enjoyed — the said Galveston Electric Company, it shall signify its agreement to and acceptance of this ordinance and all of its terms in writing properly signed by its authorized manager, which acceptance shall be deposited with the city secretary of the city of Galveston within sixty (60) days from and after the date of the passage of this ordinance.

Sec. 8. This grant is hereby made and done with the express stipulation and agreement that said Galveston Electric Company by its acceptance of this ordinance, shall and does abandon and surrender to said city of Galveston the right, privilege and franchise heretofore granted by said city of Galveston to the Galveston 80 City Railway Company (which said right, privilege and franchise was so granted by an ordinance adopted by the board of commissioners of the city of Galveston October 6th, 1904, and of which said right, privilege and franchise said Galveston Electric Company is now the owner) of owning, constructing, repairing, maintaining and operating a street railway for the term of fifty (50) years from and after the 17th day of December, 1900, on, across, over and along the following specified streets and avenues in the city of Galveston, Texas, to-wit:

On Fifty-third street from Avenue V½ to the beach, a single track;

On Fifty-sixth street from Avenue V½ to the beach, a single track;

On Avenue W½ from Fifty-third street to Fifty-sixth street, a single track;

But it is expressly stipulated, provided and agreed by and between said city of Galveston and said Galveston Electric Company that none of the other rights, privileges and franchises granted by said ordinance so adopted on said October 6th, 1904, shall be in any wise impaired by this ordinance, nor shall the acceptance of this ordinance by said Galveston Electric Company operate, or be construed or considered as an abandonment, surrender or impairment of any of said other rights, privileges and franchises and the same shall be and remain in full force, virtue and effect.

Sec. 9. That by its acceptance of this ordinance, said Galveston Electric Company binds and obligates itself to remove all of its tracks, rails, ties, street railway poles and trolley wires and supports from said Fifty-third street from Avenue V½ to the beach; Avenue W½ from Fifty-third street to Fifty-sixth street, within sixty (60) days from and after the date of the passage of this ordinance, failing in which the said city of Galveston shall have the right after thirty (30) days' written notice of said Galveston Electric Company of its intention to do so, to cause the same to be 81 removed at the expense of said Galveston Electric Company all of said track, rails, ties, street railway poles, trolley wires and supports to be and remain, however, the property of said Galveston Electric Company.

Sec. 10. That by its acceptance of this ordinance said Galveston Electric Company binds and obligates itself that when it removes its track, rails, ties, street railway poles, trolley wires and supports mentioned in the preceding section of this ordinance from those parts of its lines abandoned and surrendered by this ordinance, that it will repair and place all those parts of the streets and sidewalks from which its said property is so removed in as good and safe condition as the same were in before such removal (except such parts thereof as were injured or damaged by the storm of August 16th and 17th, 1915) and all such parts of said streets and sidewalks (with the exception aforesaid) as are shell filled or paved at the time of such removal shall be by Galveston Electric Company replaced and conditioned with similar shell, filling or paving, failing in which said city of Galveston shall have the right to cause said parts of said streets and sidewalks to be so replaced and conditioned at the expense of said Galveston Electric Company after thirty (30) days' written notice to said Galveston Electric Company of its intention so to do.

Sec. 11. This ordinance shall take effect and be in force upon and from and after its passage, provided the same is accepted in accordance with the requirements of Section 7 hereof.

Adopted at regular meeting held September 16th, 1915.

82 That the plaintiff, Galveston Electric Company, signified its agreement to and acceptance of said ordinance and all of its terms, in writing, properly signed by its authorized manager, which acceptance was deposited with the City Secretary of the City of Galveston.

That under and in pursuance *to* the said several ordinances, the plaintiff, since about the year 1905, and up to the time of the filing of the plaintiff's bill of complaint, and still is, engaged in the business of operating and maintaining a system of street railways in said city and furnishing electric light and power to the inhabitants thereof, and that each and every of the ordinances hereinbefore mentioned and set forth, became and still are, valid contracts mutually binding upon the city of Galveston and the plaintiff Galveston Electric Company.

3.

These Defendants admit the third paragraph or sub-division of the plaintiff's bill of complaint, and say, that the plaintiff has constructed, maintained, and is now operating, in the city of Galveston, its system of street railways and furnishing electric power and light to the inhabitants of said city, under and in pursuance of the terms and conditions of the franchises and ordinances heretofore above set forth.

4.

These defendants admit the allegations contained in paragraph four of the plaintiff's bill of complaint.

5.

These Defendants admit that for many years prior to October 1st, 1918, the Defendant charged and received "for a single continu-

ous carriage upon its cars operated upon the streets of the City of Galveston a fare for adults (except students no more than
83 seventeen years of age in actual attendance upon any academic or private schools of grades not higher than the grades of the public high schools of the State of Texas situated within or adjacent to the City of Galveston) of five cents, and for all children over three years of age and under twelve years of age two and a half cents", and these Defendants say that the Plaintiff charged and received said rates of fare under and pursuant to the terms of its several contracts with the Defendant, City of Galveston expressed and set forth in the ordinances granting franchises to the Plaintiff and its predecessors, as hereinbefore set forth. And while these Defendants admit that Article 361 of the revised ordinances of the City of Galveston, which ordinance is set forth in the fifth paragraph or subdivision of Plaintiff's bill of complaint, prescribes a penalty for any street railway company operating a street railway in the City of Galveston for charging any passenger more than five cents for one continuous carriage in the same direction and requires all children over three years of age and under twelve years of age to be transported in all street railways in the City of Galveston for one-half fare charged adult passengers, these Defendants deny that the Plaintiff charged and received a fare for adults of five cents and for all children over three years of age and under twelve years of age two and a half cents by reason of the exactment of said ordinance, and allege that said rate of fare was so charged and received under and pursuant to the terms of the Plaintiff's said several contracts with the Defendant, City of Galveston, the terms of which are set forth in the ordinances hereinbefore mentioned.

These Defendants admit that for many years prior to October 1st, 1918, the Plaintiff issues to its passengers, on request, certain privileges of free transfers from one line to another line operated
84 by the Plaintiff in the City of Galveston, and allege that said transfers were so issued under and pursuant to the terms and proviions of the said several contracts between the Plaintiff and the Defendant, City of Galveston, the terms of which are set forth in the ordinances hereinbefore set forth, and these Defendants deny that the said transfers were issued for any other reason whatsoever.

6.

These Defendants admit the allegations set forth in the sixth paragraph or subdivision of the Plaintiff's bill of complaint, and say that the ordinance therein set forth was enacted by the Board of Commissioners of the City of Galveston upon application of the Plaintiff, Galveston Electric Company. That prior to the exactment of said ordinance and during the year 1918, the population of the City of Galveston was greatly decreased by reason of the stoppage of shipping on account of the world war, and these Defendants are informed and believe, and have reason to believe, and therefore allege the fact to be, that the Plaintiff represented to the Board of Commissioners that on account of said conditions, and the further

fact that it was losing the revenue from the carriage of passengers to the base ball park and beach in said City by reason of the abandonment of base ball in said City and the running of excursions over the railroads entering the City of Galveston, which had theretofore yielded a large revenue to the Plaintiff, that during the continuance of the war the rate of fare to be charged passengers in said City ought to be increased and thus afford the Plaintiff increased revenues, which it claimed were necessary for the purpose of paying operating expenses, taxes and a reasonable return on the
85 value of its property devoted to the public service, and that
believing in and relying upon such representations, the Board of Commissioners were induced to and did enact the said ordinance; and these Defendants allege that the Plaintiff, within ten days after the passage thereof, filed with the City Secretary of the City of Galveston its written acceptance of said ordinance and all of its terms and conditions.

7.

These Defendants admit that on or about the 5th day of June, 1919, the Board of Commissioners of the City of Galveston passed and adopted an ordinance reducing the fares of the Plaintiff to five cents for each person for full fare and to two and one half cents for each person for half fare, a copy of which said ordinance is set forth in the seventh paragraph or subdivision of the Plaintiff's bill of complaint. But these Defendants specifically deny that said ordinance was passed and adopted arbitrarily, and they deny that the Plaintiff at the time of the passage thereof was not deriving under the increased fares collected pursuant to the ordinance referred to and quoted in paragraph six of the Plaintiff's bill of complaint sufficient revenue to pay its operating expenses and taxes, depreciation charges and a fair return upon the value of its street railway property devoted to the public service in the City of Galveston.

These Defendants allege that prior to June 5th, 1919, and after the signing of the armistice and close of the war, the Board of Commissioners of the City of Galveston, in the exercise of the powers expressly reserved to it in the ordinance of September 19th, 1918, and for the purpose of requiring the Plaintiff to carry passengers on its said street railway at the rate of fare prescribed by said ordinances and contracts, served notice upon the Plaintiff to
86 show cause before said Board of Commissioners why the rate
of fare then being charged and collected by the Plaintiff, to-wit: six cents for adults and three cents for children between the ages of three and twelve years, and for students not more than seventeen years of age, as required by the law of the State of Texas, should not be reduced, and that pursuant to such notice the Plaintiff, Galveston Electric Company, by and through its representatives, appeared before said Board of Commissioners and made a statement purporting to show the financial operations of the Plaintiff for the years 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912,

1913, 1914, 1915, 1916, 1917 and 1918, and that from such statement, and from the other evidence presented to and considered by the Board of Commissioners, it appeared that the fair value of the Plaintiff's property devoted to the public service as of December, 1918, was the sum of One million three hundred and fifty-three thousand and ninety-nine dollars ($1,353,099.00); that the gross earnings of the Plaintiff for the year 1918 were Five hundred and fifty-one thousand five hundred and eighty-five dollars ($551,585.00); that it disbursed for operating expenses Three hundred and forty-eight thousand three hundred and forty-six dollars ($348,346.00); for taxes Thirty thousand two hundred and ninety-one dollars ($30,291.00) and that after allowing four per cent (4%) for depreciation reserve, amounting to Fifty-six thousand one hundred and thirty-one dollars ($56,131.00) there was a net balance of One hundred and sixteen thousand eight hundred and seventeen dollars ($116,817.00) sufficient to yield a return of eight per cent (8%) upon the value of the Plaintiff's property devoted to the public service in the City of Galveston, and thereupon the Board
of Commissioners passed and adopted the ordinance of June
87 5th, 1919 above referred to. And these Defendants admit,
that since the 5th of June, 1919, and continuing down to the filing of this bill of complaint, the Plaintiff has charged and received for a single continuous ride upon its cars operated upon the streets of the City of Galveston a fare for adults of five cents and for children between the ages of three and twelve years two and one-half cents and for students not more than seventeen years of age as required by the law of the State of Texas two and one-half cents, and that it has continued the issuing of free transfers as provided by the terms and conditions of its franchises above mentioned and quoted.

8.

These Defendants deny that the value of the Plaintiff's street railway property devoted to the public service in the City of Galveston is not less than Two million dollars ($2,000,000.00), and they allege that the value of the Plaintiff's street railway property devoted to the public service in the City of Galveston does not exceed the sum of one million three hundred and fifty-three thousand and ninety-nine dollars ($1,353,099.00).

9.

These Defendants deny the allegations contained in the ninth paragraph or subdivision of Plaintiff's bill of complaint.

10.

These Defendants deny the allegations contained in the tenth paragraph or subdivision of the Plaintiff's bill of complaint.

88

11.

These Defendants deny that during the year 1919 the Plaintiff managed its system of street railway in the City of Galveston in an efficient, skilful/ and economical manner, and they deny that during the first five months and six days of the year 1919 it failed to derive sufficient revenue during such year to pay its operating expenses and taxes and a reasonable allowance for depreciation and a fair return upon the value of its street railway property devoted to the public service in the City of Galveston; and further deny that during the year 1919 the gross earnings of the Plaintiff, after paying operating expenses and taxes and allowing therefrom a reasonable allowance for depreciation yielded a return to the Plaintiff upon the minimum of its street railway property devoted to the public service in the City of Galveston of only Forty thousand nine hundred and seven dollars and fifty-six cents ($40,907.56) being at the rate of two and four-tenths per cent (2.4%) per annum on the minimum value of its street railway property devoted to public service in the City of Galveston; and they deny, that the statement of gross earning, operating expenses, taxes and net earnings for the year 1919 set forth in the eleventh paragraph or subdivision of the Plaintiff's bill of complaint is a correct statement of the gross earnings, operating expenses, taxes and net earnings of the Plaintiff for the year 1919, and they deny that the amount set forth in said statement is the sole and entire amount earned during the year 1919 as a return to it upon the value of its street railway property in the City of Galveston, devoted to the public service, and they allege upon information and belief, and have reason to believe, and therefore state the fact to be, that the gross earnings of the Plaintiff for the year 1919 from the operation of its property in
89 said city devoted to the public service, was the sum of Six
hundred and eighty-seven thousand six hundred and sixty-nine dollars ($687,669.00), and that its net earnings for the year 1919 was the sum of Two hundred and nine thousand three hundred and forty-one dollars ($209,341.00), which sum was applicable to the payment of a fair return upon the value of the Plaintiff's property in said city devoted to the public use, which Defendants allege was the sum of One million three hundred and fifty-three thousand and ninety-nine dollars ($1,353,099.00) for the year 1919.

12.

These Defendants deny the allegations contained in the twelfth paragraph or subdivision of the Plaintiff's bill of complaint, and allege upon information and belief, and have reason to believe and therefore allege the fact to be, that an investigation will show, that the Plaintiff has not disclosed in the statement of gross earnings and operating expenses for the months of January, February and March, 1920, all of the gross earnings of the Plaintiff during those months, and has omitted therefrom its receipts from the sale of electric light and power to the inhabitants of said city, which is an item properly to be included in the gross earnings of the plaintiff's street railway property in said city devoted to the public service, and that it has included under the item of operating expenses items not properly chargeable to operating costs, and that the net earnings applicable to a fair return on the value of the street railway property of the Plaintiff in the City of Galveston devoted to the public service is much greater than set forth in said statement.

These Defendants say that the months of January, February and March, 1920, yield much less gross revenue than any months
90 in the year and is not a fair indication of what the earnings
of the Plaintiff will be for the entire year 1920. The population of the City of Galveston at the time of the filing of the Plaintiff's bill of complaint is greater than it was at the same period for the year 1919, and these Defendants allege upon information and believe and have reason to believe and so allege the fact to be, that the Plaintiff is carrying more passengers on its system of street railways in the City of Galveston at this time than it ever carried prior thereto, and that its revenues are increasing as compared with the year 1919, which yielded the largest gross revenue in the history of the Plaintiff.

13.

These Defendants deny that the Plaintiff has no substantial source of revenue from its street railway property in the city of Galveston devoted to the public service, except fares which it collects for carrying passengers, and in that connection these Defendants allege, that under the franchises granted by the City of Galveston, hereinbefore quoted and set forth, the Plaintiff is permitted to, and is, engaged in the business of furnishing electric light and power to the inhabitants of the City of Galveston, which yields a large revenue to the Plaintiff, and that during the year 1919 the revenue of the Plaintiff from this source amounted to the sum of One-hundred and sixty-eight thousand two hundred and sixty-nine dollars and forty-nine cents ($168,269.49); that it has no power plant for the generation of electricity for the purpose of furnishing light and power, as aforesaid, separate from the power plant used by it for the purpose of generating electricity to furnish power to its street cars operated upon and along its street railway in said City;
91 that its business of furnishing light and power is operated
and conducted as a unit with its street railway properties, both as relates to its power plant, officers, employes, clerks and other operating expenses, and taxes, and the Defendants are informed and believe, and have reason to believe, and thus state the fact to be, that the Plaintiff uses its trolley wires for the purpose of distribution of electric power and light and that its said business of furnishing electric power and light is inseparable from the operation of its said street railways system, and the revenues derived from its electric business are a part of the revenues derived by the Plaintiff from the operation of its street railway and should be included therein, and

were included in the statement Plaintiff made to the Board of Commissioners of the City of Galveston showing the operation of its street railway properties on or about the 5th day of June, 1919; and these Defendants deny that there is any necessity for an increase of its fares for the purpose of yielding sufficient revenue to pay operating expenses, taxes and reasonable depreciation allowance and a sufficient amount to pay a fair return upon the value of its street railway property devoted to the public service in the City of Galveston, and they deny that if the Plaintiff is prevented from increasing its fares, as alleged and set forth in the thirteenth paragraph or subdivision of the Plaintiff's bill of complaint, that it will materially injure if not destroy the business and credit of the Plaintiff and materially interfere with the performance by it of its duty to the public and cause it serious and irreparable injury and damage for which it would have no adequate remedy at law.

14.

These Defendants deny the allegations contained in the fourteenth paragraph or subdivision of the Plaintiff's bill of complaint.

92 15.

These Defendants deny the allegations contained in the fifteenth paragraph or subdivision of the Plaintiff's bill of complaint.

16.

Further answering Plaintiff's bill of complaint, these Defendants allege that under and pursuant to the provisions of the charter of the City of Galveston hereinbefore set forth, the several ordinances granting to the Plaintiff and its predecessors rights, privileges and franchises to own, operate and maintain a system of street railways over, along and upon certain streets and avenues in the City of Galveston and the acceptance by the Plaintiff of the terms and conditions of said franchises, the City of Galveston made valid and binding contracts with the Plaintiff for the term of years set forth therein, and that by the terms of the said contracts the City of Galveston granted the right to use the said streets and the Plaintiff bound itself to furnish the service therein mentioned at rates of fare fixed in said ordinances for the period named therein; these defendants are informed and believe, and have reason to believe, and thus state the fact to be, that during all of the years from 1905 to 1919, inclusive, during which the Plaintiff has operated its system of street railways in the City of Galveston, it has earned on an average of eight per cent (8%) upon the reasonable value of its property devoted to the public use, and that during the years, 1912, 1913, 1914, 1915 and 1916 the Plaintiff earned in excess of eight per cent (8%) upon the value of its property devoted to public use, after deducting expenses of operation, taxes and four percent. (4%)

93 for depreciation, and that the plaintiff will continue, during the period stated in said ordinances, to earn a fair return upon the value of its property, devoted to the public service, and these defendants hereby set up the said several ordinances hereinbefore quoted as a bar to the relief sought and prayed for by the Plaintiff in this cause and insist upon due specific performance by the Plaintiff of the terms and conditions specified in the ordinances hereinbefore set forth, and the defendants allege, that to grant the relief prayed for would impair the obligation of its said contracts in violation of the provisions of the Constitution of the United States.

17.

And these Defendants deny that the complainant has any right to further answer to the bill of complaint herein, and denying that the Plaintiff is entitled to any injunction or any other relief whatever, submits, for the reasons hereinbefore cited and set forth, that the complainant is not entitled to any relief against these respondents, all of which matters and things these Defendants are ready and willing to further maintain and prove as this Honorable Court shall direct and therefore pray to be hence dismissed with their reasonable costs and charges in this behalf most wrongfully sustained.

(Signed) FRANK S. ANDERSON,
(Signed) McDONALD & WAYMAN,
Solicitors for Defendants.

94 THE STATE OF TEXAS,
County of Galveston:

Before me, the undersigned authority, on this day personally appeared H. O. Sappington, Mayor and one of the Board of Commissioners, of the city of Galveston, who, being first duly sworn, on oath states, that he is the Mayor, and one of the Board of Commissioners, of the City of Galveston, and as such is the Chief Executive officer thereof, and one of the Defendants in the above entitled cause; that he has read the foregoing answer and knows the contents thereof, and that the matters and things stated therein as facts are true, and that the matters stated upon information and belief he verily believes to be true.

[SEAL.] (Signed) H. O. SAPPINGTON,
Mayor.

Subscribed and sworn to before me on this the 20th day of May A. D. 1920.

(Signed) JNO. D. KELLEY,
Notary Public in and for
Galveston County, State of Texas.

(Indorsements:) Ch. No. 40. In the District Court of the United States for the Southern District of Texas, at Galveston. Galveston Electric Company vs. City of Galveston, et al. Answer. Filed 21st day of May, 1920. L. C. Masterson, Clerk, by J. L. Sexton, Deputy.

95 *Addition to Defendants' Original Answer.*

Filed June 28, 1920.

In the District Court of the United States for the Southern District of Texas, at Houston.

In Equity.

No. —.

GALVESTON ELECTRIC CO.

vs.

CITY OF GALVESTON et al.

Come, Defendants in the above entitled and numbered cause, leave of the court being first had and obtained, and file this pleading to be taken as a part of, and in addition to, defendants' original answer now on file:

These defendants aver that on, to wit, December 17th, A. D. 1900, the date of the grant by the city of Galveston to Charles F. Hotchkiss, said city was authorized and empowered to make such grant under and by virtue of the following provisions of the charter of the city of Galveston then in force, to wit:

"Sec. 34. To have the exclusive control and power over the streets, alleys and public grounds and highways of the city, and to abate and remove encroachments or obstructions thereon; to open, alter, widen, extend, establish, regulate, grade, clean, or otherwise improve the same; to put drains and sewers therein, and to prevent the encumbering thereof, in any manner, and to protect the same from any encroachment or injury, and to regulate and alter the grade of premises, and to require the filling up and raising of same."

"Sec. 73. To direct and control the laying of railroad tracks, turnouts and switches, or prohibit the same in the streets, avenues and alleys, unless the same shall have been authorized by law, and the location of depot grounds within the city; to require that railroad tracks, turnouts and switches shall be so constructed as to interfere as little as possible with the ordinary travel and use
96 of streets, avenues and alleys, and that sufficient space shall be left on either side of said track for the safe and convenient passage of teams, carriages and other vehicles and persons, and to construct and keep in repair suitable crossings at the intersection of streets, avenues and alleys, and ditches, sewers and culverts, when the city council shall deem it necessary; to direct the use and regulate the speed of locomotive engines within said city, or prevent and prohibit the use or running of the same within the city."

"Sec. 73*a*. To regulate, control, and direct the mode and manner of the laying and construction of street railway tracks, switches, turnouts, turn-tables and other necessary structures in the streets and alleys, and to compel railway companies to keep the streets between the rails ballasted and graded on a level with their rails; and to keep the space between their rails in all paved streets in perfect repair, or to pay actual cost of the same when done by the city; to compel the street railway companies to build all necessary culverts, and to make all necessary improvements, so as to insure a safe and easy passage for vehicles over said streets, or to pay the actual cost of the same when done by the city; to compel street railways to raise or lower their rails and the roadbeds between the same to conform to the grades of the streets, or to pay the actual cost of the same if done by the city; to compel street railway companies to pay the actual cost of filling and grading, grading and paving the streets between their rails in all cases where the same may be filled and graded, or filled, graded and paved by the city; provided, that this section shall not alter or change the mode of improving streets and assessing the cost of the same as prescribed in sections 127, 128, 129 and 130 of the city charter. To regulate the speed of street cars; to forfeit rights of way and franchises heretofore or hereafter granted to street railway companies, for non-user or abandonment; and to enforce the provisions of this section by proper ordinances and penalties."

The twenty-second legislature, acts 1891, special laws of Texas, regular session, put into the Galveston charter an amendment reading as follows:

97 "Section 73*b*. The city council shall have power to require, on due notice, all railway companies owning tracks within the city limits which may have been or may hereafter be abandoned by them, by nonuser, to remove such tracks, and to restore, at their own expense, the street or way upon which such abandoned track is located, to proper grade. No railway track shall ever be laid nor any railway of any kind whatever ever allowed to be operated on the Strand, or Avenue B and on Tremont or 23rd Street; and no more than two railway tracks shall ever be placed on Broadway. No street railway company operating a street railway in this city shall charge, or receive from any passenger more than five cents for one continuous carriage in the same direction; but where tickets or other evidences of the right to ride on any such street railway are issued, the same shall be sold at the rate of not less than six tickets for twenty-five cents. The city council shall have the power at any time to change the location or remove the railway track or tracks on any street or avenue from one portion of the street to another, and to enforce such change of location in mode to be prescribed by ordinance."

Defendants aver that under and by virtue of the above and foregoing charter provisions, and under and by virtue of the authority granted to cities in article 10, section 7 of the Constitution of Texas that defendant city was authorized and empowered to grant the aforesaid franchise to Charles F. Hotchkiss, and that such franchise in fixing a 5-cent fare was legal and binding.

Defendants further aver that the legislature of Texas by an act approved April 19, 1901, granted to the City of Galveston a new charter, section 34, subdivision 17 of which reads as follows:

"To make all suitable and proper regulations in regard to the use of the streets for street cars, and to regulate the running of the same so as to prevent injury or inconvenience to the public."

Defendants further aver that said new charter of 1901 contained in section 45 thereof the following provision:

"All legal ordinances, resolutions or acts heretofore passed
98 or had by the said city, making any grant or concession, or vesting any property right, interest or franchise, shall remain unaffected by the repeal of the charter of said city, and amendments thereto, hereinafter provided for."

Defendants further aver that said new charter of 1901 also contained the following provision, to-wit, shown as section 93;

"Sec. 93. That an act entitled: 'An Act to incorporate the city of Galveston and grant it a new charter,' passed on the 2nd day of August, 1876, and all other acts relative to the incorporation of the city of Galveston, as well as all amendments to the charter of said city, be and the same are hereby repealed. Excepting, however, all legal ordinances, resolutions or acts heretofore passed by the city council of Galveston and any provisions of said charter of 1876, and amendments and acts relating thereto providing for the issuance and payment of either principal or interest of outstanding legal unpaid bonds of the city of Galveston. Provided, that the rate of taxation hereafter fixed in any ordinance providing for the issuance of refunding bonds, shall not exceed the rate levied in the ordinance under which the bonds to be refunded were issued; provided further, that nothing in this act shall be taken or construed to impare the obligations of outstanding legal contracts of the city of Galveston."

Defendants further aver that the legislature of Texas again during 1903 amended the Galveston charter by adding to said section 34, subdivision 17, a provision making such subdivision then to read as follows:

"To make all suitable and proper regulations in regard to the use of the streets for street cars, and to regulate the running and operation of the same so as to prevent injury or inconvenience to the public, and from time to time to prescribe reasonable fares and transfers in the carriage of passengers."

Defendants further aver that said charter of 1903 also contained the provision herein above set out as being a part of said section

45. Defendants further aver that said section 93 was also
99 included in the 1903 charter as section 79.

These defendants aver that said charter of 1903 is still in force and effect in the city of Galveston, except for certain amendments thereto not material to the issues involved in this case. These defendants aver that a binding contract was made under said Hotchkiss grant for a five cent fare in the city of Galveston and that the vailidity of such grant in that respect has been preserved and validated by the legislature of Texas in granting a new charter to the city of Galveston; that the provisions of said grant for a five cent fare are legal and binding and should be given effect by this court.

Defendants further aver that plaintiff, by reason of having accepted the Hotchkiss grant and operated thereunder, it is now estopped to deny the validity of the 5-cent fare provision therein, and estopped from claiming that such provision is not binding on it, and is estopped from claiming that the city of Galveston was not authorized to make such contract for a 5-cent fare for the term of said grant.

Wherefore these defendants pray that plaintiff's bill of complaint be dismissed; and they pray for all relief asked for in their original answer.

FRANK S. ANDERSON,
McDONALD & WAYMAN,
Attorneys for Defendants.

—— ——, being duly sworn, says that the matters of fact as stated in the foregoing pleading are true.

—— ——.

Subscribed and sworn to before me, this — day of June, 1920.

—— ——,
Notary Public, Galveston County, Texas.

(Indorsements:) Eq. No. 40. Galveston Electric Co. vs.
100 City of Galveston, et al. Addition to Defendant's Original
Answer. Filed 28th day of June, 1920. L. C. Masterson, Clerk, by J. L. Sexton, Deputy.

101 *Plaintiff's Answer and Replication to Original and Amended Answers of Defendants.*

Filed June 28, 1920.

In the United States District Court for the Southern District of Texas, Galveston Division.

In Equity.

No. 40.

GALVESTON ELECTRIC COMPANY

vs.

CITY OF GALVESTON et al.

Now comes the plaintiff, Galveston Electric Company, and leave of the court being had files its answer and replication for the purpose of replying to certain averments in the original answer of the defendants, and an amendment thereto filed herein on the — day of June, 1920, and for such replication and answer the plaintiff avers:

1.

That the provisions of Section 4 of the so-called Hotchkiss Ordinance of December 17, 1900, did not constitute a contract between the grantee therein and the City of Galveston, nor did it impose upon the grantee, nor does it impose upon his assigns or upon this plaintiff, any obligation to continuously charge no more than a five cent fare, for the following reasons:

(*a*) At the time the Hotchkiss franchise ordinance was passed
in 1900, the City of Galveston had no authority to fix or regulate
fares, and especially it had no authority to contract for street rail-
way fares to be charged over a period of years; that the provisions
plead by the City of Galveston and relied upon to show this author-
ity, viz: Section- 34 and 73 of the Charter of 1876 and Sections
73-*a* and 73-*b* Amendments thereto, enacted in 1891, do not either
in express or implied terms confer upon the City of Galveston the
right to fix and regulate street railway fares, and especially they do
not confer upon the City the right to fix and regulate such fares for
a period of years, as is averred to have been done in Section
102 4 of the Hotchkiss ordinance; that the provisions of Section
73-*b* of the Amendment of 1891 do not confer any authority
whatever upon the City of Galveston in so far as the fixing or
regulating of fares is concerned, but that portion of said amended
section relied upon to show this authority contains a legislative
declaration fixing a maximum street railway fare at five cents for
one continuous carriage in the same direction, and a maximum price

for tickets, should any street railway company affected thereby, see fit to avail itself of the privilege of issuing and selling such tickets. That it is not stipulated in this amendment to the Charter that the City may so regulate street railway companies or may impose these conditions and limitations upon them or may contract with them that such fares shall be fixed and charged for a period of years, but the legislature itself exercising its regulatory functions in such matters fixes a maximum fare which shall prevail, and this regulation constituted a limitation upon the right of the Company to charge a higher fare so long as the same was in force, and does no more than this.

This provision in the Charter Amendment of 1891 was repealed by express terms found in Section 93 of the Charter of 1901, enacted by the Legislature of Texas in that year. (Page 145 Special Laws passed by the 27th Legislature of the State of Texas). Said Section 93, House Bill No. 224, Chapter 12 Special Laws of the 27th Legislature titled "An Act to incorporate the City of Galveston and to grant it a new charter and to repeal all pre-existing charters" was as follows:

> "Section 93. That an Act entitled 'An Act to incorporate the City of Galveston and grant it a new charter' passed the second day of August, 1876, and all other acts relative to the incorporation of the City of Galveston, as well as all amendments to the charter of said city be and the same are hereby repealed, excepting however all legal ordinances, resolutions or acts heretofore passed by the City Council of Galveston, and any provisions of said charter of
> 103 1876 and amendments and acts relating thereto providing
> for the issuance and payment of either principal or interest on outstanding legal unpaid bonds of the City of Galveston, providing that the rate of taxation hereafter fixed in any ordinance providing for the issuance of refunding bonds, shall not exceed the rate levied in the ordinance under which the bonds to be refunded were issued, provided further that nothing in this Act shall be taken or construed to impair the obligation of outstanding legal contracts of the City of Galveston."

That after the passage of this charter in 1901 and the repeal of the aforesaid provision of the Charter Amendment of 1891, it ceased to become effective or to further constitute any limitation upon any company operating street railways in the City of Galveston.

(*b*) The defendants have not shown in the various charter provisions plead that the City of Galveston ever had any express or implied power to fix or regulate street railway rates prior to the passage of the charter of 1901, and they rely upon Section 45 of that charter which they plead as conferring such authority. That this section does not confer express authority to fix and regulate fares, that it confers no authority whatever to contract for fares for a period of years, or no authority which could be construed into a retroactive ratification of Section 4 of the Hotchkiss ordinance. That Section 45 of the Charter of 1901 plead and relied upon by the

defendant requires the City in granting any franchise to expressly reserve at all times full regulation and control of such franchise, and while it requires a franchise to include a provision as to the rates, fares and charges, nevertheless it does not require that the grant shall regulate these things, nor does it in express terms authorize the City to so regulate them in such grant. That if any power to fix or regulate fares is conferred by this Section 45, it is an implied power only and such powers can not, under prevailing rules of statutory and constitutional construction, be granted
104 by implication. That if there is an implied power in this section, it is no more than a power to include a provision in such a franchise regulating or authorizing the City to regulate charges and fares; that it does not undertake to confer upon the city by implication the power to contract for such fares as shall prevail over a period of years.

(*c*) The Hotchkiss ordinance including the Section 4 relied upon as a contract fixing fares, was passed prior to the Charter Amendment in 1901, which contains the first authority ever conferred upon the City of Galveston, as far as these pleadings show, to fix or regulate fares, and whatever authority it conferred was not retroactive to the extent that it validated a contract made without authority prior to its passage.

(*d*) In so far as it is sought to construe Section 4 of the Hotchkiss ordinance and any other provisions of later ordinances which in any way adopt or refer to the Hotchkiss ordinance and to have the same enforced as an irrevocable and binding contract between the Company and the City, said Section and such a construction of it are violative of Section 17, Art. 1, Bill of Rights of the Constitution of Texas, which provides that no irrevocable or uncontrol-able grant of special privileges or immunities shall be made, but all privileges and franchises granted by the Legislature or created under its authority, shall be subject to the control thereof.

2.

Further answering the aforesaid pleadings of the defendant- the plaintiff avers that the provision in the Hotchkiss ordinance fixing fares to five cents was intended merely as a reasonable regulation of fares, alike to the City and the Company at the time the ordinance was passed. That the provision was included in the ordinance primarily because of the statute already referred to which limited fares to five cents, but which was repealed in 1901. That after the charter of 1901 was enacted neither the city of Galveston nor the present plaintiff company, or anyone else claiming rights and privileges under the Hotchkiss ordinance, have ever considered that
105 this clause was binding on either party, but have always understood that the City retained the power and regulation as it is required in the 1901 charter that it should do. At various times following the enactment of the 1901 charter containing sec-

tion 45 above quoted, the City of Galveston has made sundry franchise grants to the present Company, all of which are set forth in the defendants' answer and in all of which it has been stipulated as required by the 1901 charter, that "the City expressly reserves the right and duty at all times to exercise full superintendence, regulation and control in respect to all matters connected with the police power of the City".

That by this clause as used in the 1901 City charter and the 1903 City charter, and as used in these various grants, it was meant that the City reserve full power to fix and regulate fares, as well as make any other regulation which falls within the police powers of the City. That a large part of the system now operated by the present company is operated under these various grants made since it acquired the properties in 1905. That it is clear from an examination of the franchises under which it holds the right to operate that portion of its system installed since 1905, that the matter of fare to be charged, as well as every other police regulation affecting the property, is reserved for regulation by the City. That these things show that both the City and the Company have at all times regarded all questions of police power as so reserved and open to timely regulation.

That in 1917 the City passed an ordinance regulating fares downward and requiring the Company to carry a certain class of passengers for half fare. This ordinance is copied in the plaintiff's original bill filed herein.

That in 1918 the City passed an ordinance regulating fares upward and permitting the Company to charge six cents, the City reserving to itself, however, the full right to regulate, control, change, alter and fix the maximum rate of fare to be charged by the Company. This ordinance is copied in the plaintiff's original bill filed herein.

106 That on the 31st day of May, 1919, the present city council passed the following resolution:

"Resolved that Wednesday, June 4th, at 10 o'clock a. m. at the Council Chamber in the City Hall of this city be fixed as the time and place for public hearing in regard to the fares charged by the Galveston Electric Company and that the City Secretary notify the Company of the time and place for hearing and that the daily newspapers be requested to give publicity of the same to the public who are invited to attend and present the side of the people."

That a copy of this resolution was delivered to the plaintiff company on the same day that it was passed, and thereafterwards, on June 4th, 1919, a hearing was had as specified in this notice and as alleged in the original bill of the plaintiff herein. That immediately following this hearing and on June 5th, 1919, the City Council passed an ordinance, copied in the plaintiff's original bill, reducing fares to 5 cents, giving as a reason for the passage of this ordinance that the City had reserved the right to alter, change and fix fares charged by the Company, and that it appeared that the

Company was earning a dividend on its capital stock and that public interest required that the rate of fare be reduced to five cents, and it further appearing that the reduction would in no manner impair the credit of the Company, and that under the reduced rates of fare the Company would continue to earn a fair and reasonable return upon its capital stock.

That all of these things show the construction that the Company and the City of Galveston and the different Boards of Commissioners of the City of Galveston that have dealt with these matters at various times since 1905, have placed upon the fare provision of the original Hotchkiss ordinance, and the relative rights and duties of
107 the parties concerning maximum fares to be charged. That these things are now plead as the proper construction and mutual understanding of the parties as to the fare provisions of the original ordinance and of the rights and duties of the parties touching such matters since that ordinance was enacted. The plaintiff avers that acting under the belief that the ordinance was susceptible to this construction and had this meaning, and acting upon the representations of the City aforesaid that the city so construed these matters, it has invested vast sums of money, aggregating several hundred thousand dollars, in the extension development of these properties, and it would be inequitable and unjust for the City of Galveston to now be permitted to contend that this provision, though never binding upon it and enacted without authority, is nevertheless binding upon this company.

3.

Further answering the defendants' pleading already referred to, the plaintiff avers that they do not disclose any authority on the part of the Commissioners of the City of Galveston to enact the ordinance of the 5 day of June, 1919, referred to in the plaintiff's original bill, the enforcement of which ordinance the plaintiff seeks to have restrained and enjoined by this Court, and in addition to the grounds heretofore plead for asking such relief, the plaintiff here now asks the court to restrain and enjoin the enforcement of said ordinance because it was void for want of power in the City Commissioners to pass and enforce same, since the Legislature of Texas had never theretofore delegated to the City Commissioners of the City of Galveston the powers sought to be asserted in this ordinance of June 5, 1919.

BALLINGER MILLS,
C. R. WHARTON, AND
WILLIAM E. TUCKER,
Counsel for the Plaintiff,
Galveston Electric Company.

W. E. Wood, Manager of the Galveston Electric Company,
108 being duly sworn says that the foregoing allegations are within his knowledge and are true, except such as are stated upon information and belief and which state legal opinions and conclusions of the pleader, and these he verily believes to be true.

W. E. WOOD.

Sworn to and subscribed before me by W. E. Wood, this the 3rd day of June, 1920.

LAWRENCE HURD,
[SEAL.] *Notary Public, Harris Co., Texas.*

(Indorsements:) Eq. No. 40. Galveston Electric Co. vs. City of Galveston, et al. Plaintiff's Answer and Replication to Original and Amended Answers of Defendants. Filed 28th day of June, 1920. L. C. Masterson, Clerk, by J. L. Sexton, Deputy.

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109 *Order Appointing Master.*

Filed July 12, 1920.

In Equity.

No. 40.

GALVESTON ELECTRIC CO.

VS.

CITY OF GALVESTON et al.

It appearing to the Court in the above styled and numbered cause, that there is a rate controversy involved, which for the proper development and disposition of the case requires the appointment of a master to take evidence, and make his report in said cause as to the facts established therein, and their bearing upon the reasonableness or unreasonableness of the ordinances attacked therein.

It is ordered that Henry J. Dannenbaum a member of the bar of Harris County, Texas, be and he is hereby appointed master in said cause, with the power and authority to hear and take testimony in said cause in accordance with the rules governing such proceedings, and in accordance with this order, and on the hearing and taking of such testimony to make and cause to be transcribed a true and complete record thereof, or should such testimony be presented in the form of documents or reports agreed upon by the parties, to certify to the same as evidence, without the necessity of causing their transcription, and generally to take the testimony and make the report thereon fully and completely and in accordance with the rules, and this order, and such other orders as may be by the court made, and generally with the authority to do any and all other acts and direct all other inquiries and proceedings in the matter before him which he may deem necessary and proper to the justice and merits thereof, and to the rights of the parties. And upon the conclusion of such hearing to transmit the record thereof together with his report and recommendations thereon to this Court, for its further action on the premises, as by the Rules by this order or any other order hereafter entered may be provided.

J. C. HUTCHESON, JR.,
Judge.

110 (Indorsements:) No. 40. In Equity. In the District Court of the United States for the Southern District of Texas. Galveston Electric Co. vs. City of Galveston et al. Order Appointing Master. Filed July 12, 1920. L. C. Masterson, Clerk, by G. Predecki, Deputy.

111 CONDENSED STATEMENT OF EVIDENCE.

Filed June 21, 1921.

In the United States District Court, Southern District of Texas, at Galveston.

GALVESTON ELECTRIC COMPANY

v.

CITY OF GALVESTON.

Summary of Testimony Before H. J. Dannenbaum, Master, October Fourteen to Sixteen, 1920.

Henry G. Bradlee, Deposition.

Direct interrogatories:

I am senior vice president, secretary, clerk and a stockholder of Stone and Webster, Incorporated, a corporation successor to the firm of Stone and Webster, a partnership, of which I was a partner from July 1, 1907 to May 26, 1920, the date of incorporation. I was graduated from M. I. T. in 1891 and immediately entered the employ of Stone and Webster, and have been there ever since. My principal work has been in connection with the management and financing of public utilities in which the firm was interested or which were under its management. In connection with this work I have been closely in touch with the public utilities situation as a whole in all parts of the country and abroad.

The business of Stone and Webster is as follows:

The initiation, development, management, financing, design and construction of industrial enterprises, specially public utility enterprises, but not confined solely to that field, being party in engineering and construction work generally.

112 The Galveston Electric Company, the present plaintiff, is under management of Stone and Webster, Incorporated, under a contract which covers similar services for the street railway system of Houston and the interurban operating between Houston and Galveston. Stone and Webster, Incorporated, is paid for its strictly management services a percentage of the Company's earnings, this percentage being at the present time 2.4 per cent. For engineering and construction it is paid a percentage of the cost of the engineering and construction work, and for financing the payment for service is determined from time to time by a committee of

stockholders acting independently and having no interest in Stone and Webster, Incorporated. The amount paid for management of the Galveston Electric Company is included as a part of the general charge for the management of the properties in Houston as well as in Galveston, and the interurban between Galveston and Houston. The amount charged to each of these properties is pro rated in proportion to the earnings of each property. Making a further division between the street railway and electric light and power department of the Galveston Electric Company on the basis of their respective earnings, gives the following figures as the amount paid to Stone and Webster for management for each year from 1914-1919 inclusive:

113	Railway dept.	Light & power dept.	Total.
1914	$12,010.93	$2,347.72	$14,858.65
1915	11,515.82	2,788.75	14,312.57
1916	10,065.47	2,858.22	12,924.69
1917	8,538.57	2,503.11	11,031.88
1918	9,417.51	2,804.57	12,222.08
1919	12,488.54	4,211.43	16,709.97

I believe that the management of the Galveston Electric Company by Stone and Webster, Incorporated, or a similar organization, is decidedly advantageous to the Company and to the public, for the following reasons, in addition to the reasons stated at the end of the enclosed form of management contract.

Many years' experience shows that small sized public utilities can be managed more economically and otherwise more satisfactorily under group management than as individual units. Figures show that a very large percentage of public utilities are so managed in the United States as well as in England, France, Belgium and Italy. The management of public utilities requires a wide range of specialized knowledge and technical skill, the services of men of broad training, long experience in finance, engineering, construction and operation, and such men get large salaries. Small properties cannot afford to pay the required salaries nor avail themselves of their undivided attention. A group of companies by dividing the expense can do this. Our management provides a general purchasing department for all companies under our management, constantly in touch with leading manufacturers and the general 114 trend of prices, buying in volume at low prices. This feature has already saved the Galveston Company approximately $200,000 in fuel costs compared with what they would have been if the Company had been obliged to buy individually. Our management organization provides a Station Betterment Department for the training of power station personnel and the systemization of operating and maintenance methods, as well as inspections of stations. On conservative estimate the activities of this Department save our Companies not less than $500,000 a year. The Insurance Department saves the Galveston Company about $4,500 annually for insurance protection. Other savings are effected through the following departments: Statistics, Corporation, Auditing, Real Estate, Accounting, Transfer, etc. Similar savings and advantages are secured in design and construction through group operation, both in the first cost and in subsequent operating economy. The engineering and construction force work in close cooperation with the operating force.

Group management is distinguished from Holding Companies. The latter are sometimes under group management but not necessarily so. In the Stone and Webster organization group management is adopted without the general Holding Company. The separate properties are entirely independent of each other financially, and their securities are sold directly to investors.

I am asked what, in my opinion, is a fair rate of return for the Galveston Electric Company to make on the value of its property
devoted to the public service under present conditions. As I
115 see it, it is not a question of what is a fair rate of return. The
real question is what rate must the Company earn on the value of its property to enable it to secure additional capital from time to time to improve and extend its property, and to provide adequately for the constantly increasing demand for public service. I believe that a rate of return of at least 10 per cent is necessary for this purpose and possibly an even higher rate than this may be necessary for a considerable number of years, because of conditions caused by the war. Galveston is an active, growing community with a constantly increasing demand for street railway, light and power service. To meet these demands, additional capital must be obtained each year to provide for improvements and additions to the property. Such money can be obtained only through the sale of the Company's securities to investors.

In offering its securities it must compete with securities offered all over the country. To sell its securities in the face of this competition now, and for a considerable time to come, it must show divisible earnings of at least 10 per cent on the value of its property after making provision for all operating expenses, taxes, and replacement requirements.

In 1919 the Galveston Electric Company borrowed $100,000 on its own second mortgage from the Galveston-Houston Electric Company. The cost of this new capital to the Galveston Electric Company, allowing for discount and expenses incident to the transaction,
was 9.3 per cent. To obtain the necessary money to loan,
116 the Galveston-Houston Electric Company was in turn forced
to borrow, and sold its three-year notes at a cost of 9.2 per cent per year to Lee, Higginson & Company, investment bankers. This was more favorable to the Company than could have been obtained from other bankers, because Lee, Higginson & Company have been associated with the financing of the Galveston-Houston Electric Company for many years, and hence felt some responsibility for assisting the Company under conditions brought about by the war. The notes were sold to Lee, Higginson & Company in April, 1919. The Company had previously carried a large debt in the form

of bank notes, amounting in March, 1919, to $1,365,000, a dangerous and excessive debt for a company of its size. After much thought and with the improvement of market conditions following the close of the war, the sale was made early in 1919.

I believe there has been no time in this period, either before or since April, 1919, when the securities could have been sold on as favorable a basis. The Eastern Texas Electric Company and the El Paso Electric Company have recently obtained new capital through the sale of securities. The Eastern Texas Electric Company in May, 1920, sold $1,500,000 par value of five-year, 7 per cent, convertible gold coupon notes to provide for the refinancing of maturing notes and for additional capital, at a cost of 10.38 per cent per year. The El Paso Electric Company in June, 1920, sold $800,000 par value of five-year, 7 per cent, gold coupon notes at a cost of
10.1 per cent per year. These high prices were paid for
117 money nothwithstanding that the Eastern Texas Electric
Company was earning about three times the interest charges on all of its funded debt, while the El Paso was earning about five times its similar charges.

I am familiar with the present financial situation as the same affects public utilities in general and street railways in particular. Previous to the war the cost of labor and materials had been gradually increasing, and street railways on a fixed five cent fare were finding it exceedingly difficult to earn a fair return on the capital invested in their properties. This had injured their credit to some extent and made it more difficult for them to obtain new capital as needed. During the war this condition grew worse and resulted in a very serious situation for all public utilities. Extraordinary increases in the cost of labor and materials prevented some street railways from earning their operating expenses, to say nothing of raising new capital, and many went into the hands of receivers. The credit of all public utilities was seriously affected by these conditions and the credit of street railways for the time being was practically destroyed. It was clear that the only hope for the street railway industry was to obtain increases in fares sufficient to provide for the changes in operating conditions and the higher costs of conduct-
ing the business, including the higher cost of capital.

118 During the past two years increases in street railway fares
have been allowed in a large percentage of the cities of the country, and this has to some extent improved the credit situation, but as yet the improvement is only slight and a return to a satisfactory condition can be expected only when it has been shown that the need for increased income will be recognized by the public in all communities for all time.

At the present time, and probably for a good many years to come, I think it will be necessary for public utilities to show divisible income of at least 10 per cent, in order to secure new capital needed to provide for increasing demands for service. For street railways an even higher rate than this may for a time be necessary. Developments of the past few years have not only destroyed their credit to a large extent, but have created an unfavorable impression on the part

of the investing public toward all classes of street railway securities. Until this attitude can be corrected, it will, in my opinion, be necessary for street railway companies to pay a relatively higher rate of return to obtain new capital in competition with other branches of industry. It is possible that utilities will in the distant future be able to obtain new capital by showing a return as low as 8 per cent, but this can come only gradually after a considerable time and will not come at all unless public utilities in the future receive broad minded and fair treatment from the public and all regulating authori-
119 ties.

The Pennsylvania Railroad recently sold an issue of $50,000,000 ten-year, 7 per cent secured gold bonds at a cost, I am informed, of something in excess of 7½ per cent. The government of Switzerland, in July, 1920, sold in this country $25,000,000, twenty-year, 8 per cent, sinking fund gold bonds. Although enjoying the highest financial credit, Switzerland was forced to offer these bonds on a basis to yield 8 per cent for twenty years at a total cost of probably at least 8½ per cent. In September of this year the government of the French Republic sold in the United States $100,000,000, twenty-five-year, 8 per cent sinking fund bonds at par, to yield 8 per cent a year at a probable cost to the French government in excess of 8½ per cent. The kingdom of Belgium in June, 1920, sold in the United States $50,000,000, twenty-five-year, 7½ per cent, sinking fund redeemable bonds at 97½. These bonds were callable for the sinking fund at 115 per cent, with a consequent speculative feature. A number of large industrial corporations have borrowed money during the past year. A few typical examples are as follows:

In July Armour & Company sold $60,000,000, 7 per cent, ten-year, convertible gold notes. These notes had a large margin of safety, but were sold to the public on a basis to yield 7.75 per cent at a probable cost to the Company of about 8½ per cent. The notes had an attractive conversion feature.

Bethlehem Steel Company recently sold $20,000,000 Merchant Marine Equipment Trust Certificates, secured by mortgages on ships, on a basis to yield 7⅝ per cent per year.

120 In July, the United States Rubber Company sold $20,000,000, ten-year, 7½ per cent secured gold notes on a basis to yield 7.75 per cent a year.

In the last few days Swift and Company have offered $40,000,000, 7 per cent, five-year gold notes at 97½ and interest, to yield 7.6 per cent per year.

These illustrations show clearly the rates now being paid for capital by some of the largest and strongest industrial corporations in the country.

I give below a statement showing the rate of return on bonds of street railways and other public utilities, according to recent information. Comparatively little data is available in the case of street railway bonds, since on account of the attitude of the investing public towards this class of security at the present time there is little or no market for them.

Bonds of Street Railway Companies.

Company.	Interest rate (%).	Price.	Approximate yield (%).
Boston Elevated Ry. Company	4	Market	8.25
Boston Elevated Ry. Company	4½	“	8.25
Eastern Massachusetts Street Railway Company	5	“	8.00
Galveston-Houston Electric Railway Company	5	70	7.40
Houghton County Traction Co. ...	5	70	8.35
Northern Texas Traction Co.	5	83	7.00
West End Street Railway Co.	4½	Market	8.25

121 *Bonds of Public Utility Companies Other Than Street Railways.*

Company.	Interest rate (%).	Price.	Approximate yield (%).
Bell Telephone Company of Pennsylvania	7	Market	7.35
Blackstone Valley Gas & Electric Company	5	85	6.40
Buffalo General Electric Co.	7	98	7.55
Cleveland Electric Illuminating Company	5	Market	6.75
Columbus Power Company	5	83	6.75
Commonwealth Edison Company .	7	Market	7.70
Detroit Edison Company	5	Market	6.60
Duquesne Light Company	6	86	7.15
Edison Electric Illuminating Co. of Brockton (Mass.)	5	87	6.80
Michigan Northern Power Co.	5	Market	7.00
Mississippi River Power Co.	5	74	7.10
Nevada-California Electric Corp. ..	6	Market	7.00
Niagara Falls Power Co.	5	Market	6.50

As pointed out above, these quotations are for a few scattering sales of bonds, made from time to time in small amounts. If it were necessary for any one of these companies to offer a large issue of bonds a considerably higher yield would be necessary in order to sell them. This is illustrated in the case of the financing done recently by the Eastern Texas Electric Company and El Paso Electric Company as referred to above. In both of these cases a relatively
122 large amount of new capital was raised and it was necessary
to sell the notes in each case on better than a 10% basis.

It would be quite unfair to apply to a public utility as a fair rate of return to be earned on the value of its entire property devoted to the public service the interest rate which it is required to pay for money borrowed on its bonds. Most public utilities obtain necessary

capital partly through first mortgage bond issues, partly through notes having a lien subsequent to the bond but prior to claims of stockholders, partly from the sale of preferred stock and partly from the sale of common stock. Evidently the risk to the buyer of bonds is much less than that to the buyer of common stock, and the risk in buying notes and preferred stock falls somewhere in between. Bonds having a first lien on the entire properties may be thoroughly safe-guarded through a large excess of property value over and above the face value of the bonds outstanding and yet conceivably with the bonds thoroughly safe-guarded in this way, there might, in liquidation, be nothing left for the common stock after the bonds, notes and preferred stock were paid off. The rate of return paid to the investor depends on the risk involved. For a thoroughly secured bond he is satisfied to accept a relatively low rate of return. For common stock with a large element of risk he must receive a relatively large rate of return to attract his money. It is difficult
123 to say how the total rate allowed on the entire property should
compare with the rate of return paid on its first mortgage bonds. It depends somewhat on the size and character of the property, conditions under which it operates, the amount of first mortgage bonds outstanding in proportion to the size of the property and many other similar elements. It is, however, safe to say that the average rate of return on the entire investment in the property should be at least three per cent in excess of the rate paid on the conservative first mortgage bond issue, and may be more than this.

The Galveston-Houston Electric Company owns all of the capital stock of the Galveston Electric Company, except qualifying directors' shares and except $150,000 par value of stock which is in the treasury of the Galveston Electric Company. On March 5, 1920, there were 1,554 stockholders of the Galveston-Houston Electric Company residing in all parts of the United States, in Canada, South America, England, Scotland, Ireland and France. Securities such as this of the Galveston-Houston Electric Company are generally sold in the Northern and Eastern parts of the United States where the market for such kind of investment is much better established than in the Southern and Western parts of the country. It would be entirely impossible for the Galveston Electric Company to be permanently financed by the Texas banks or any other banks. Banks deal primarily in short time paper whereas, public utilities to be satisfactorily financed must sell stock and long time bonds and notes.

124 Early in 1909 Stone & Webster attempted to develop a market in Texas for the sale of securities of Texas Companies and continued this effort till 1911 by interesting local banks and bankers. The results were disappointing. Sales, actual and prospective, were so small and the expense so high that the experiment was discontinued. Texas investors can get good real estate mortgages yielding 8 per cent, which are more attractive to them than our securities. Furthermore, many local commercial and industrial enterprises pay from 10-20 per cent, specially agricultural and cattle propositions. Therefore, we could not compete in the sale of our securities. Since then conditions have somewhat changed and it is

possible to sell notes locally to some extent in Texas. Recently the Texas Electric Company sold an issue of $1,500,000 notes of which $154,000 were sold locally to investors in and about Beaumont and Port Arthur. The El Paso Electric Company sold $800,000 notes of which $170,300 were sold in El Paso.

Cross-interrogatories:

In addition to the Galveston Electric Company, Stone and Webster, Incorporated render similar services to fifty other public utility operating companies located in the United States, Canada, Cuba and Porto Rico. By such other public utility companies it is compensated along substantially the same lines as in the case of the Galveston Electric Company. It is employed as general manager of
the Galveston Electric Company by the directors and subject
125 to the direction of the Board of Directors has general charge
of the management of the property for the Company and its security holders. It receives no compensation other then the 2.4 per cent per annum of the Company's earnings for its services. Although the present officers and employees of the Galveston Electric Company are efficient and competent, it is nevertheless desirable, to secure more efficient operation and more satisfactory results in every way, both to the Company and *its* public, to provide the services of the general officers and specialists and experts of Stone and Webster, Incorporated, the expense incident to this arrangement being shared with a large group of Companies and thus being available for the Galveston Electric Company at minimum cost.

The new capital secured by the Galveston Electric Company in April, 1919, was borrowed on three-year, 7 per cent notes which were sold at 93. The Galveston-Houston Electric Company sold an issue of its notes at this time to Lee, Higginson and Company at 98½ less a brokerage fee of 3½ per cent paid to Lee, Higginson and Company, the proportionate part of this fee for the Galveston Electric Company for the $100,000 which it borrowed being $3,500 and in addition the Galveston Electric Company had expenses of $366 mainly for legal services in preparing the necessary mortgage and other papers incident to the transaction. The total brokerage fee and expenses to the Galveston Electric Company was therefore $3,866. Although a prejudice on the part of American investors in respect to the securities of European governments, due to the un-
settled conditions throughout Europe undoubtedly exists in
126 some cases, it is not general, as is shown by the fact that the
$100,000,000 French issue, the $25,000,000 Swiss issue and the $50,000,000 Belgium issue have all been over-subscribed; also, the $20,000,000 Norwegian issue. The rates offered and paid by the European governments have an important bearing on what other borrowers, including the Galveston Electric Company must pay in order to secure capital in competition with them and other similar borrowers. A materially higher rate of return is required by a public utility in order to interest capital than should be necessary on well secured loans on real estate. The risks are very great, and the property once installed is permanently fixed and must remain in-

definitely in the public service in spite of competition, local business depression, storms, epidemics or other profit destroying circumstances. Its rates are subject to strict regulation by public authorities and cannot be promptly adjusted to meet increased operating costs, as is the custom in other lines of commercial business. Furthermore, it is not customary to loan money on real estate mortgages beyond approximately 50 per cent of the fair value of the property, hence the security is ample and the factor of risk is practically eliminated, particularly in a growing city like Galveston. This is not true of public utilities which are necessarily financed almost entirely on securities of various classes which must be sold to the investing public. The investor quite properly demands assurance of a higher rate of return on the capital he invests in the public utility business in order to compensate for this and for the extra hazards of the business. Unless he can get this higher return, his money will go into other investment channels.

127 As regards the effect of prevailing interest rates on money borrowed by local commercial enterprises, this, in common with a great many other considerations, is to some extent a factor in determining rates which public utilities must pay for capital. Commercial enterprises as a rule, however, borrow money in comparatively small amounts on short term paper, usually for sixty days to ninety days. The rates paid are, therefore, not only subject to frequent adjustment to meet changing conditions, but the loan can be called on any expiration date so that the lender is well protected. Furthermore, such loans are negotiated as a rule to finance the purchase of merchandise which will have to be sold to customers by the time the loan is due, and from the proceeds of which it can, therefore, be liquidated. Public utilities cannot finance themselves on any such temporary basis as this. A commercial business will ordinarily turn over its capital several times a year whereas a public utility with its large investment in proportion to its gross earnings will turn over its capital once in four or five years as a rule, and its financing must, therefore, be of a relatively permanent nature. This adds to the risk and consequently the rate of return which the investor demands. During the war there was a tremendous demand for capital to finance war activities and a tremendous destruction of capital during the war. Now that the war is over there is a world wide demand for investment capital for rehabilitation, for further development and for restoring the world's stock of staple commodities which was largely depleted during the war. The available supply of investment capital is limited, and it will, in my opinion, take many years to restore normal conditions. That this view is also shared
128 by large borrowers is evidenced by the high rates of interest being paid by foreign governments and by the strongest industrial organizations in the United States on loans running in most cases from ten to twenty-five years. In the meantime the demand for capital will be urgent with the result that higher interest rates will prevail for a good many years than would be the case if conditions were normal.

There is no connection between Lee, Higginson and Company and Stone and Webster, Incorporated.

I am not familiar with the details of the financing of the proposed Dallas-Wichita Inter Urban. My general understanding is that a syndicate had agreed to sell $5,000,000 bonds to finance a portion of the cost of the proposed line and had agreed to dispose of these bonds by August 1st this year. According to newspaper reports the syndicate was unable, on account of the prevailing financial conditions, to dispose of these bonds within the time allowed, and the time has been extended. It now appears that it is hoped to have the financing arranged for and the construction of the road started by March, 1921. I do not know what progress has been made in selling the stock of the proposed road nor do I know at what price the bonds are being offered for sale.

129 H. P. GILLETTE, witness for plaintiff:

Direct examination:

My name is Halbert P. Gillette. I reside in Chicago and my business is engineering and publishing of an engineering periodical. I had a four year engineering course in Columbia University and graduated in 1892 and entered the practice of civil engineering, practicing continuously, excepting for several years in the contracting business, in the civil engineering field. I began my practice of appraisal work in 1906 as chief engineer of the Railroad Commission, representing the state of Washington. I appraised for the state of Washington all the street railroads and some of the interurban electric railways in that state in the years 1906 and 1907, totaling some three thousand miles of railways, and about $225,000,000 worth of property. Then I began appraising street railways, electric light and power properties, water works, etc., first on Puget Sound, Washington, in the four chief cities there, Seattle, Tacoma, Sellingham and Everett, and interurbans connecting those cities. I also appraised practically all the power properties in Nevada and apportioned the properties of the Nevada-California Power Company, and the Southern Sierras Power Company of California. Then I appraised the telephone property of the Bell Telephone in Pennsylvania and later I was one of the committee in charge of the appraisal of all the telephone properties of the Bell System in New York state and the northern part of New Jersey. Following that I
appraised the Bell Telephone property in Vermont. I have
130 made miscellaneous appraisals, such as the appraisal of the
street railway system of Houston, the electric properties at Beaumont and Port Arthur in this state and various small properties. The total valuation of all my appraisals in round numbers would be between $650,000,000 and $700,000,000. In connection with these cases the engineering experts are usually called upon to testify to matters in addition to the value of property, the present values and the past values, also we have to make some sort of an estimate as to whether these values will continue in existence or whether they

will decrease from the present high levels, and that has led a good many of us, at any rate, to study the general subject of prices in relation to the various commodity prices of the country, the rise and fall through the past fifty or sixty years and the present condition of those prices and what the probability in the future is as to their fall or rise.

I have written two hand books on the subject of cost and prices in the engineering field, one called, "The Hand Book of Cost Data" carrying civil engineering instructions, the other I am a joint author with Mr. Dana of "The Hand Book of Electrical Cost Data," covering street railways, electric light and power property, and I have written a great many articles on the subject of prices and depreciation and of the related matters that enter into a rate case of this character. I have here a reprint of two of my recent articles on the subject of price levels and index prices.

(Pamphlet received in evidence as exhibit 1.)

This study covers the wholesale commodity prices in the United States for the last sixty years, starting in 1869 and coming
131 down to 1919. It also embraces data relating to wages during the same period by years. The fundamental sources of the data used are the United States Census Report and the Bureau of Labor Report, both public documents. I have also gone back to the Aldrich Report for the Senate Committee relating to prices back of 1891 as far back as 1840. .

Before explaining what this study developed I think I had better define a few terms used. The United States Bureau of Labor publishes every month a bulletin that shows what they call commodity index prices. An index price is a relative number and if you were to take, say 200 commodities or 250 commodities in the year 1913 and add their prices together and divide by 200 or 250, the assumed number of commodities you would have an average price for the year 1913 of those commodities without regard to the quantities consumed. That would be called an unweighted average index price. Now if you did the same for the year 1919 you would have another unweighted average index price, and if you divided the first by the second you would find a ratio approximately two to one, prices having doubled in that interval. In other words, calling the index price of 1913 one hundred per cent and the index price of 1919 two hundred twelve, it is 2.12 times what it was in 1913, so the index price as given out by the Bureau of Labor should be read as percentages taking the year 1913 as they now do as their base price the last pre-war year before the effect of the war was felt. That would be unweighted prices not taking into account the number of bushels of corn or wheat, or whatnot, but just taking the prices alone. The Bureau of Labor goes further than that and weights these prices in proportion to the amount of commodities produced so as to
132 get a true average, and their index prices are all weighted.

Weighting is necessary to get a true result because if some commodity of which very little was used was given just as much

weight in arriving at these prices as the major commodities such as corn or coal, it would give a distorted image of the price. So they take the number of bushels and multiply them by the price during that year to get a total, and so for each commodity, and then they divide by the total number of units to get a weighted average. They do that for each year and take the year of 1913 as 100%, and so the index prices of the Bureau of Labor are all proportionately larger or smaller than that year. Now, to show some of the results given us by the Bureau of Labor since the year 1891, and prior to that by the Aldrich Report. In the year 1913 the index price was 100; in the year 1914 it fell to 99; in the year 1915 it rose to 100, and since then it has risen very rapidly until it reached the level of 212 in the year 1919. It rose to 272 in May of this year and in August, the last full month on which we have a report, it has dropped to 250 and at that figure it was 20% higher than it was
for the average of 1919. I compared the Bureau of Labor
133 index prices with the index prices of the R. G. Dunn Agency,
which has kept index prices for a great many years. I do not really regard that as reliable as the Bureau of Labor, because they don't take in as many commodities. Nevertheless, they agree very closely for most of the years with the Bureau of Labor and they show, at any rate, the same general movement with very slight variation in percentage between the two. Now, we have, therefore, a pretty accurate record in this country of what wholesale commodity prices on the average have been, all related prices for the year 1913 as a base year. In the year 1860, the year before the Civil War, the index price according to the Bureau of Labor was 90, in 1865 it rose to 172 or almost double. Thus during the five years of the Civil War our average commodity prices almost doubled. They have slightly more than doubled in this last world war between 1913 and 1919, and they continued to rise until they are now two and a half times what they were in 1913. Prices dropped very rapidly following the Civil War and then they sloped off very gradually to the year 1879. In 1879 prices got back practically to where they were before the Civil War. Thus it took fourteen years for these
prices to descend to the level that they were at in 1860, con-
134 trary to popular opinion. Construction prices were even
slower in getting back. The figures affecting this construction cost are taken from the Aldrich Senate Report No. 1394. The Aldrich Committee made an investigation that extended over a period of about twenty years, as I recall it. I went to the original report to get my figures and it is quoted in all the books on political economy where they go into price levels. They employed a very competent economist by the name of Faulkner to compile their data taking wages and prices all over the United States back to the year 1840, and under seven different heads, of which two of the heads were lumber and building materials, and metal and implements; then they have clothing under another head and food under another: seven different heads; then they combined them all under the head of "All Commodities". They took for that purpose as I recall it, the 100% level in 1860, the pre war level. We are taking now for

our purpose the 100% in 1913. That accounts for the difference in the base level.

The Faulkner Index Level, so-called, has been continued right down to the present time. It, and the Bureau of Labor statistics overlap, and the two overlaping check only for the short 135 period they overlap. R. G. Dun and Company also made an entirely independent investigation which agreed substantially with the Faulkner Report.

It is not the method used that makes these averages prices go up. Everybody that computes it finds much the same thing, but some take more commodities than others.

The Bureau of Labor has been in the habit of taking more commodities than Dunn or Bradstreet and it is believed that due to that fact they have a better average index price. Following the end of the Civil War in 1865, the average index price of all commodities dropped to 160; in 1866 lumber and building materials rose to 187 before the end of the year and they got back to 172 in 1873. At that time all commodities averaged 120, still being 20% above the pre war level, whereas, lumber and building materials were 172 or 72% above the pre war level and metals and implements, meaning iron, copper, lead, etc., was 149. Now, you have there following the war what might have been expected, namely, that building construction which had been held back during the war began to get headway after the war ended and the consequence was that prices were held up relatively on all building materials, higher than on other things. The consequence was that at the end of eight years after the war ended, lumber and building materials were almost as high as they were in 1865; they had declined only 8%. It seems to me, therefore, considering that fact alone that it is very safe to say that construction material will not now go down as fast 136 relatively as other commodities. We are short on construction, short on buildings, short on railways and nearly everything and as quick as headway again starts on those it will tend to maintain the price level of building materials higher than it will prices of certain other things. Our foodstuffs and clothing have gone up at this time just as they did in the Civil War, much higher than building materials proportionately, and they are coming down at the present moment much faster.

There were so many divergent reasons as to why prices varied that I decided about a year ago to go through all the literature on the subject that I could find, starting with the earliest economists like Adam Smith and coming on down through with whatever economists we've had since and make abstracts of their opinions upon the factors that affect prices and price levels; not bond prices and stock prices, but commodity prices; and having gathered all that data together, I undertook to ascertain whether there was not some simple way of bringing into effect all the factors that have any pronounced influence upon commodity level prices. Well, naturally I would start with the law of supply and demand. Price is 137 affected by the demand and by the supply. It is commonly said to be the ratio of the demand to the supply. Now, you can only measure the demand in money—the amount of money spent for any given class of commodity represents the demand for that class. That is as Adam Smith puts it, "the relative demand" There might be a potential demand back of that, but that has no effect. It is what is actually spent that determines those prices. So you have the money spent for any given commodity any year, divided by the number of units sold, would give you the average price for that year. That was very simple. Everybody will concede that. The next question is, how could you get it for all commodities in the country. How could you determine the number of units produced, and that was my problem, to see whether it could not be done. I think you had better put this in to the record.

$$\text{Price} = \frac{\text{Demand}}{\text{Supply}} = \frac{\text{Money Spent}}{\text{Number of Units of Product}}$$

$$p = \frac{D}{S}$$

$$p = \frac{M \times V}{N} = \frac{M \times V}{P \times E}$$

$$W = \frac{K \times M \times V}{P \times E}$$

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$$W = \frac{M \times V}{2 \times P \times E}$$

p = Price per unit.
M = Money.
V = Velocity of circulation of money or number of times money is turned over annually.
N = Number of units of product.
P = Population.
E = Per capita efficiency of production.
W = Wholesale index Price of Commodities, as given by U. S. Bureau of Labor.
K = A constant factor.

Starting with the line at the top, everyone can see that price is the ratio of demand to supply. In other words, as I have written it there in the form of an equation, the average price equals the demand divided by the supply. The demand is the money spent for a given thing and the supply is the number of given units or products sold. Now, you can abbreviate that, and I do in the
139 next line, using an algebraic expression, the small p standing for price and the D for demand, S for supply. p equals D divided by S. Now, that is clear enough, but how are we going to take all commodities into consideration. Well, it is apparent that

the total amount of money in the country in a given year multiplied by the number of times it is turned over, must represent the total purchases. I call the number of dollars in circulation at a given time. M, money. It happens to be about six billion dollars. Multiply it by V, the velocity of exchange, or the number of times it is turned over in the year and you get the total expenditures of all kinds. That would be the total demand for everything. Now the supply, let's call the supply N, the number of units of products produced, in that year and practically all things produced or sold within the year, the holdover of one year offsetting the holdover of another, so that practically all we produce is sold within the year. Now, how are we going to measure what is produced? Well, it occurred to me that the simplest way of doing that would be to take the total population and if I should find the per capita efficiency of production for each year, I could multiply it by the total population and get at substantially the total productivity for the year. So I
140 analyzed that number of products into two factors which follow that, population and per capita efficiency of production. Now we have for the average price, therefore, four factors, money, velocity of circulation, per capita efficiency of production and population. That would give you the actual price. Now the relative price or index price, as I have explained before depends upon what year you take as your base, base year, whether it is 1913 or some other year, but you are always getting percentages to some base. So I would have to multiply that by the factor K, the constant, which would depend upon what base you took and the formula that follows beneath the fourth column there is W, weighted index price on wholesale commodities is equal to money, multiplied by the number of times it is turned over divided by two times the population plus the per capita efficiency. Now, that is the formula that I introduced before it was applied in this case to see whether or not I hadn't got all the factors in properly. Of course, money is easily ascertainable. The United States Treasury Department and also the Census Bureau issue statements every year and the Treasury Department every month of the amount of money in circulation. Money in circulation is all the money in the banks, ~~held as reserve~~ and all the money or currency in circulation in the pocket-books and pockets of the people. That can't be estimated with perfect precision but they evidently get at it pretty accurately and it is about six billion dollars, I believe, in this country in 1919. It is a little higher now. Is is about 6% higher, 6 or 7% higher. We, therefore, have for every year ascertainable the money in circulation. We know the population with greater
141 accuracy. They overestimated it a little bit this last time because of the falling off in immigration, but we now know what it was so that we can interpolate between the last census and the present census and get at our intermediate years with greater accuracy. That leaves two factors to be determined; the rate at which money turns over "v" or velocity of circulation and efficiency of production. Well, it occurred to me that the way to measure velocity of circulation, the rapidity with which money is turned over, would be to take the bank deposits in the middle of the year on July 1st, and divide them

into total bank clearings for the year and that ought to give me the relative value for "v." As that went up and down, it would indicate the rapidity with which money is being turned over, but on second thought, I saw that there was one disturbing factor there and that was the gambling which is commonly done on the New York Stock Exchange which causes the bank clearings in New York to jump up and down faster than they do outside of New York. Outside of New York the clearings do not jump up and down with those tremendous lunges within one or two years. It moves up and down with kind of broad sweeps instead of making tremendous jumps. I was satisfied that the clearings outside of New York represented more accurately what was happening in the country at large with respect
to business than the clearings in New York. Then I began
142 to wonder whether I could not find some way of eliminating
the effect of stock and bond sales from the New York clearings. And in thinking it over it occurred to me that there would be $2.00 of clearing appear in the New York clearing for every dollar of sale. If you wanted to buy stock, you would not buy stock from me but you would buy it from a broker, and your check would be paid to your broker and he in turn to mine and I would get it and there would be $2.00, if those checks went through the clearing house, of checks for every dollar of sales. So I took the total sales of each year and multiplied them by two and deducted them each year from the total clearings in New York and I got a very astonishing result, which is shown in that black line at the bottom and you will notice how that black line not only parallels and overlaps the clearings outside of New York, but the two are almost identical year for year, showing, I think that the proper way of eliminating the effect of New York stock and bond sales is by doubling the sales during the year and subtracting them from the bank clearings of the corresponding year. Having made that elimination of the effect of the stock and bond sales, on clearances, I was able then to proceed in getting
this factor "V," velocity of turn over. I then took the total
143 bank deposits in the country in the middle of the year and
divided them into the total bank clearings for that year and that gave me "V." That left only one factor and that was the efficiency of production, but that was a tough nut.

Considering wholesale commodities, there are three big fields into which you can divide the production. First, agriculture; second, mining and third manufacturing. Those are the three sources of practically all our whosesale commodities. If I could get the efficiency of production in each of those fields and combine them with the whole, I would have the per capita efficiency for the wholesale production of commodities. I could see that clearly, but how to get it was the problem. I took agriculture first because we have very accurate records for the last fifty years of the number of bushels of corn, wheat, oats, rye, tons of hay, bales of cotton, pounds of sugar, pounds of tobacco and all the leading staples by years. So I took those staples and it happened that nine crops, and I have named them all, I think, constitute 85% of the total crop values in any given year and the other 15% correspond. So I took those

nine crops every year and multiplied that out by the same price.
So as to remove the effect of variations in prices I took pre
144 war average prices for these various products and determined
on that basis the amount of money represented by each of
those nine crops for the last fifty years. It did not do much good
to go back of the Civil War period because things were all upset
during that period and I could not get any very accurate data.
Then I added to that the 15% for the crops that were omitted. That
gave me the agricultural productivity of the country and I divided
that first by the number of agricultural workers, which we have
accurately every ten years, and can interpolate for the intervening
years, to get the farmers' efficiency of production.

Then I took up minerals and it so happened, fortunately too,
that seven minerals constitute 85% of all our mineral products.
I was astonished, naturally, that coal is half the total. I similarly
priced out the minerals taking tons of coal, copper, iron or gold,
silver, lead or zinc. These are the great staple minerals which
constitute 85% of the total mineral products and I priced them out
at the same price at the mines, for gold for example, $1.50 at the
mine, which is a pre war average and iron ore $2.00 a ton at the
mine and lead $100.00 a ton, short tons, and so on, priced them all
out just as I did for the agricultural products. Then I divided by
the number of miners which was given in the census report and also
in the reports of our United States Geological survey. That would
give me the mining efficiency by years for the last fifty years.
145 With those two I had covered pretty nearly half the total
working population of the country. I mean, doing wholesale
production work, not retail. So I had left the manufacturing. I
started in to get that in the greatest detail, just the same as I had
for these others. In the cotton, in the textile industries first, and
then in the leather industries and I worked it out quite completely
when I finally thought that I could get at it in a quicker way that
would cover the whole situation just as accurately for all practical
purposes. The Census Bureau makes a census of manufacturers
every five years and it gives the value of the raw products that enter
into the manufacturing and it gives the value of the finished products.
It also gives the wages and the salaries paid each year, each
of those census years. So I took the value of the finished products
and deducted from it the value of the raw products. The difference
would be the value by manufacturing. Now, to equate them to the
same level, get the same level prices, prices in that case had risen
and fallen the same as they have in other cases and I wanted to get
the same level so as to compare them all on the same level of prices.
I divided eleven totals for each of these index years by the commodity
index price from year to year. An illustration will make it clear why
that should be done. In 1913 the result would be, I would divide by
100% and in 1919 I would divide by 212 to equate it back to the
same level of 1913, and so I did for each of these census years and
that gave me the equated value of the manufactured products,
using the year 1913 as a standard.

My purpose was to eliminate the different price levels and get them

on the basis of efficiency in units of production by workers.
146 Then by dividing by the number of workers in the manufacturing field, I would get the efficiency of production of the workers. Coming to the combination of all three, I took the agricultural and mining and manufacturing all equated to the 1913 level by five year periods and divided by the number of people that were in the country in each of those five year periods to get my per capita efficiency. I will just give you the results. I discovered that per capita efficiency of production had doubled between the years 1869 and 1919; doubled in the series of forty years. I had rather expected that would be the case because I noticed that wages had doubled in the same period. I have a wage table here and a wage diagram which shows that between those periods wages, the average daily wage-, themselves, had almost exactly doubled and I also noticed that while prices had risen and fallen and gotten back to the same level so that a day's wages would be twice as much in 1919 as it was forty years or fifty years before. That indicated to my mind that they must have doubled in efficiency of production. Those men must have turned out more products or they could not be paid more income in purchasing power of dollars and that check I have made in an entirely different fashion, coming to the remarkable result that wages had doubled over that period and so had efficiency arrived at in this careful method. Then came the question what had happened in the last ten years, particularly during the last five and I found that efficiency had remained practically constant,
147 that there had been no material change, per capita efficiency
had remained almost the same which was to me a surprising thing, because many a business, many a manufacturer, many a contractor had said that our efficiency had fallen off during the war so tremendously that that was the cause of high prices, or one cause, but here are the facts staring them in the face. It is not so. Why, however, did we cease to advance in our per capita productivity about ten years ago? Why did we stop? Well, going back through my own recollection, I knew that the eight hour day began to come in about eight years ago very strongly in manufacturing, mining, etc., and kept increasing until most of the industries are on an eight hour day base now. Prior to that we had been getting advantage of inventions and improvements in our machinery, etc., but that advantage was offset now by shortening the hours. We were going down to a shorter day and that offset our increased advantage in the use of machinery. So I sought some confirmation of what I had arrived at in my own way and I began looking through the various public documents and those put out by Babson, a Statistical Organization, and I found a rather surprising confirmation closer than what I had anticipated I would get, though they had not made a study anything like as exhaustive as I had, nor as far back. I also found that the War Industry Bureau had made a similar study, price bulletin No. 1, under Professor Mitchell, who gathered the
148 data; he is one of the best economists, I imagine, in the
country. They took ninety commodities wholesale, twenty-five of those were vegetable, thirteen animal, twenty-three forest

products, twenty-seven mine products and two fisheries products, totaling ninety commodities and they priced them out at the same price every year and they took the year 1913 as their price base and here is what they got. The total value of all those commodities priced out at the same price in 1913 was $30,375,000,000.00. The following year 1914 was almost identically the same, $30,207,000,000.00; 1915 was $32,482,000,000.00. An increase in that volume would indicate that you are getting greater efficiency, but you are getting more people of course, we have got more population. It might not increase the per capita but you have to divide by the population to get it. In 1916 it was $33,700,000,000.00; in 1917 it was $34,748,000,000.00 and in 1918 it was $35,169,000.00 about 16% rise in five years' time. Our population in that time had risen about 7 or 8%; one half of one per cent per annum, so that there was actually a slight gain in 1918 output per capita over 1913. They stopped at 1918 and I wrote Professor Mitchell asking if he could get the 1919, but he has gone with another organization and he could not give me the figures. It must be borne in mind that 1918 was one of our very high priced years—our commodity index price was 196 and yet we had increased our productivity per capita according to his statement, and that check tallies with mine.
149 I think we scarcely increased it and my figures indicate practically a horizontal line per capita. Then I got Babson's Barometer Letter, or "Composite Plot," as he calls it. This is dated August 31, 1920. I will just read off his index figures. He takes 100 as a standard, with 100% in 1913, 100% in 1914, 105% in 1915, 108% in 1916, 110% in 1917, 115 in 1918, 109 in 1919; that checks pretty closely, by the way, with this one I just read; 1920 is 110. He estimates the rest of the year on the basis we are now going. He does not take anything like as many commodities as I took nor as taken by Professor Mitchell in his price bulletin. He says the subjects on which this index is based are cotton, petroleum, wheat, corn, pig iron, copper, coal and live stock. He takes the big staples that come from agriculture and that enter into manufacture. The Irving National Bank got out a similar statement which they have taken from the Federal Reserve Board and that gives almost the same result as Babson's production chart. There is enough it seems to me to establish the fact that efficiency in production in this country has not fallen off per capita. Individual efficiency has certainly gone down in some lines tremendously. I know that to be the case in the construction field, but all the carpenters and masons and whatnots put together are only a drop in the bucket. We have got forty million people working and you take one or two million of those falling off tremendously, it would not affect the total materially. The farmers have got in and worked harder this year as have also the coal miners. The coal miners, although
150 10% of their men were gone to war, produced more coal—10% more coal with 10% fewer men, a total of 20% gain per man. Then we have got to compare also the fact that women have come into the industries which have taken the place of a large number of the men and still remain in and they tend to raise per capita

efficiency although the individual efficiency might have gone down somewhat and that is not only true in respect to this formula but with respect to the general arguments that are being put out with respect to why prices have gone up. Now, they say that men are getting back to the pre-war production and that prices will decrease. My answer is we are back, we never have gone below it; there has not been a stage of the game in the last five years when we have not been fully as high as we were before the war. Now, there is one other thing, the question is, how much have we shipped abroad in excess of our imports? The answer to that is the statistics put out by the Government. They tell us exactly how much the imports are and how much the exports are each year, so I have taken the imports and the exports each year and divided them by the commodity index price for each year to get them to the same level and I find that for fifteen years prior to the war, our exports exceeded our imports by a gain that was equal to 2½% per total production in this country of wholesale commodities, but that during the five war years the excess was 10%. In other words, the condition was 7½% subnormal in what was left at home; hence the effect upon prices would be to increase them 7½%. We
151 had that much less for distribution here to send the prices
up if this formula was right; it would act to increase just the same as if we had decreased our productivity, we had held it level, but we did not get the benefit of it in our markets that went up and down just the same as if *E* had gone down so far as the effect on home markets was concerned. When I wrote my first article, I had not given that consideration, but when I had my formula completed and saw that I was 10% off in the results for the last three or four years, I began to wonder why it was that it had stuck closer than that in the preceding years. Then studying it, I saw that this was the answer. Then I made a correction for that excess of exports over imports and here is a chart I would like to file as an exhibit, comparing the formula with the actual.

(Chart referred to marked "Plaintiff's Exhibit Number 2.)

Having given the formula, the rest was merely a mechanical computation, and I turned that over to an assistant to compute and complete this chart. The red line on this chart is the result he got by applying the formula. The black line is the wholesale index commodity prices issued by the Bureau of Labor, the historical record. The two, you will note, seldom differ by more than 6 or 8 per cent, and for most part are only 3 or 4 per cent apart. I will
take every five years, starting with 1885 and read my index
152 price and the corresponding Bureau of Labor price. In the
year 1889 my calculated price is 87, the actual price 89; drop down five years—calculated 75, actual 71; drop down to '99—calculated 85, actual 75; drop down to 1904—calculated 87, actual 83; drop down to 1909—calculated 95, actual 94; drop down to 1914—calculated 86, actual 99. Then the remaining ones there I have corrected for exports over imports. You will notice they are in pretty

close coincidence, but on page 58 I give the calculated and the actual for the year 1915 as both 100. In 1916 the calculated was 128 and the actual 123; 1917—calculated 163, actual 175; 1918—calculated 190, actual 196; 1919—calculated 207, actual 214. It seems to me that we have here a proof of the substantial accuracy of the formula and the quantities that I have used in it year by year for its amount, predicting backward, and that the formula was substantially correct. Predicting backward is a well known scientific method (giving illustrations). I think that what we have got for the last forty years is pretty accurate.

The use of a formula in this particular case, or in any similar case, before we have an analysis of the factors of future prices leaves it any man's guess, pretty nearly, as to what is to happen in future commodity prices. It has been known for several centuries that when money increases everything else being about the same, prices in the commodity go up. Economists agree as to this (quoting from Julius Paulus, John Locke, David Hume.)

153 There is a diversity of opinion as to whether increases in bank deposits have the same effect as money. From my own experience and study I have concluded that a bank credit merely defers the time of payment. As the payment has to be made sometime, it merely defers the time and we get right back to money again. In thirty years bank deposits per capita have risen twice as fast as money. The effect would be that money would be twice as high as it is now. I think that is proof conclusive that bank deposits cannot have any such effect as frequently regarded. They do have an effect upon the velocity of turnover. Now, as the Federal Board is restricting credit, they are affecting that turnover velocity. People are drawing in their horns. The turnover of money is slackening and it is that slackening which is right now getting these prices down with considerable rapidity. They have been going down rapidly for the last two months and I think they will come down for the next three or four months. Nobody can tell with what rapidity, but after it gets back to normal, where it was before the war, we have nothing that is left that is abnormal but the volume of money. That volume of money in 1919 was just 60 per cent higher than it was before the war, due to its quick transfer from foreign nations who had shipped us gold. We have issued some additional paper money which we will probably retire later, but it looks now as if the volume of money, if anything, will rise and there is very little lik-lihood of its falling. I don't anticipate that it will change very much. There is only nine billion dollars of gold in the world.
We have a third of it. The nations of the world owe us ten
154 billion dollars. Through their paying interests and paying
off their notes it comes right back to us. So we get to this point, that if our money remains substantially as it now is, prices will sink to a level of around 1.6 or 1.7 times what they were in 1913. We will have to fall from a level of 250 right now in August down to 160. That is a long drop, about thirty-five per cent yet to get back to what I would regard as a more permanent level. What is bringing us down now with tremendous rapidity is the falling off

of this factor "V." Now, when we get to that level, looking forward beyond that, what will happen? Population is increasing at the rate of 1- per cent per annum. If that was the only factor that was changing, that would lower prices 1½ per cent because the per capita production would be decreased as commodities would be decreased, and you would get the result of 1½ per cent drop in prices. The efficiency never did rise for any five years any better than 2½ per cent per annum above the base that it started with in this country. A conservative estimate would be an increase of 1½ per cent per annum in the efficiency after we get settled down to the eight hour day and squared away from what we were before 1909. After the velocity of money turnover gets back to normal a combination of increasing efficiency and increasing population will tend to lower prices about 3 per cent per annum, assuming money remains in volume about the same as at present. So, as I look forward it looks to me as if there would be rapidly declining prices to a plateau of 60 to 70 per cent above what it was before the war, and
155 then a gradual decline of 3 or may be 4 per cent per annum
thereafter, which is about what happened after the Civil War peak came down in just this sort of a movement. The real object of stating these facts is to show that these things are not so ephemeral as some people think.

I think that to apply that plateau of prices as a matter of economics, and entirely aside from the legal question, to a valuation of this kind of a property would be equitable. We have priced this property at present prices and at pre war prices. Mr. Elrod and I have agreed substantially on the pre war prices. He has not priced it out at present prices. My pricing it out indicates that the cost as of June 30, to reproduce this plant, is about 2.1 times as much as it would have cost five or six years ago before the rise in prices. That is taking substantially the present existing high prices as unit prices and applying them to the inventory. It would cost about 2.1 times as much as it did on the historical basis. I don't think, for the reasons which I have explained, that it will stay up there. I think that construction prices will move down slower than commodity prices, but I don't think it would be equitable, looking forward into the future, to take the present high prices as a just basis for rates. I do think that something above the pre war low prices should be given in one form or another, either in the form of higher valuation or the form of higher rate of return, and that rate of return
156 is tied right into it because money buys less today. If I were
left free to arrive at a rate base for the property, I would apply to the pre war unit prices this ratio of 1.6 and if I did that, I would apply as a fair rate of return the commercial rate of return which has usually been regarded as about 8 per cent in recent years. At first sight this seems like giving the owners of the property an unearned increment, but due to the fact that the dollars they receive would buy only half what they bought before the war, they are getting no unearned increment, but as a matter of fact would be getting less in purchasing power with their money than they would if they could go back under the old situation. After all, that is what

money is useful for. Average wages have gone up probably about 75 per cent, but in the construction field they are fully double, due to the decreased purchasing power of the dollar.

I have investigated also the relation between interest rates and commodity prices.

(Here is introduced as plaintiff's exhibit 3 a certificate of the County Clerk of Galveston County, giving all the mortgages taken from the records, covering the City, and the rate of return where deeds of trust show such rate.)

When I made a study of these interest rates I was under the impression that while they fluctuated more or less they were up and down through short periods of time, but would run in the northern states around 6 per cent, and in the south and west 7 or 8 per cent
on well secured loans and commercial paper. A book I read
157 called, "A Century of Prices" published in 1919 contained a
number of charts showing the yield of corporation bonds in
this country and the yield of English consols, showing that the range of yield for each year in this country from 1860 down to 1918, and of consols for one hundred thirty years back shows the same thing, namely that as commodity prices have risen and fallen, bond yields have risen or fallen, the two curves being somewhat parallel. However, bond yields generally come along later in changes; commodity prices move quicker than the yields of bonds and interest rates, and follow it and lag behind, but eventually move in the same general way. I have here a chart illustrating this, furnished by the Babson Statistical Organization, entitled "United States Corporation Bond Yield" (introduced as plaintiff's exhibit 4). It appears from the chart that in the year 1860 corporation bond yields ranged between 6½ and 7½ per cent. During the Civil War for the next two or three years they declined, and when the war was ended they went back up to where they had been. Then they started to rise and they rose quite steadily up to the time of the panic in 1873, at which time the average bond yield was 7.7 per cent. Then they started their downward march, reaching their extreme low edge in 1901, when the yield was about 3.7 per cent. There you have a drop of just about half the high point in 1873. One cannot look at such a chart without being immediately impressed with the parrallelism in those prices
in those years. The authors also call attention to similar
158 parallelism in the yield of English consols compared with
index prices in Great Britain. The bond prices usually lag
a little behind. Commodity prices started to go down in 1865, but the bond yield kept on rising. We have a condition now that is similar. As soon as the war ended construction started up again, bonds of railways and other corporations began to be floated and put on the market which was already loaded with government bonds which would tend to depress prices and increase the yield. Now on top of that comes the construction building mortgages and all kinds of demands for money which naturally forces the yield up and prices down. The same phenomena is happening right now as has happened. This table only goes as far as 1918. You will notice it had

risen to a point where it was then 5½ per cent. The later figures are not given, so I had to turn to other sources. One of the best is taken from a September letter of the National City Bank in New York, giving the relative yield of different kinds of bonds for different years.

Year	1903.	1910.	1920.
Municipals	3.31	4.00	5.07
Rails	4.10	4.21	6.88
Utilities	4.63	4.79	7.51
Industrials	5.69	5.25	7.56

The average for the year 1920 for utilities bonds is 7.51 per cent and for railway bonds 6.88 per cent in yield. Street railways
159 are under the head of utilities. Since 1910 there has been an
increase of about 60 per cent in everything except municipals which are tax free and hence can carry a smaller rate of interest. From the chart we see that in 1918 the average yield of all corporation bonds is only 5½ per cent, but that it has now gone up to a point where it is in excess of 7½ per cent for everything except municipals. In other words, if this chart were carried out it would give us much the same history as we had in the Civil War with the prospect of going still higher. The floating of the bonds of foreign nations, like the French government and other foreign governments, is going to have the same effect of either maintaining the present price levels or shoving them still higher. They are trying to refund these loans in small notes. A general assortment of recent corporation financing announcements shows excellent securities with the yield between 7½ and 8 per cent. The money costs the corporations more than that, as they have to pay commissions to bankers ranging from 2 to 5 per cent of the total issue; raising the cost of the money to the Company from ½ to 1 per cent.

In addition to this some Companies amortize the legal expenses of these bond issues; also bankers now demand that corporations assume a portion of the income tax up to 2 per cent, which is an additional cost to the Company for the money. The record of mortgages in Galveston shows a general average of 8 per cent interest rates. It doesn't show much difference between business and residence properties. I should say that well secured property would carry an 8
per cent interest rate and that the Company in that case would
160 perhaps pay around 6½ per cent for the money. That of
course does not indicate what a fair return should be because the other 50 per cent is composed of the equity of the stockholders which carries a much greater risk than the 50 per cent under the mortgage. In arriving at a fair rate of return which would take this risk in consideration, the Wisconsin Railway Commission in pre war days used to allow 6 per cent for mortgage interest, plus 2 per cent, making 8 per cent as the fair return on the total property. The 2 per cent was to cover the risk that all the stockholders had and the proprietary supervision of them as stockholders. They took all the chances and had to exercise their judgment through the Board

of Directors. There is an element of risk there because they may not get an adequate return and in this case here there are such elements of risk which I will now mention.

Starting with 8 per cent as the interest rate on the bonds, there are certain factors to be added thereto which cannot be sized up separately but must be taken altogether on the fundamental principle that if the risk is increased, the interest rate must also be increased. For instance, this property has lost earnings for the time when the Galveston flood wiped out a portion of its property and it was under reconstruction. Frequently in the case of a public utility corporation it is ordered to make changes in its property for which, when the property is valued, it is not repaid unless there is a depreciation fund to take care of it. In the case of a street railway company you will frequently have depreciation that is incurred and not included 161 in the operating expenses. You get into operating expense all your current maintenance. You have renewals occurring from time to time *to time* and these you might take care of out of operating expenses but in addition there may be and frequently is a certain amount of depreciation on your property that you never get paid for. Now if that depreciation is not given in the form of development cost which I am going to explain later, you have lost it and you have got to insure yourself against that loss. It becomes very heavy in the case of this property. Figures show that the depreciation which has occurred has not been provided for in operating expenses. If the Court does not grant that accrued depreciation as a part of value, but ignores it and takes the book value, the owners will suffer a loss. The risk that that may happen should increase the fair return rate.

If the property was valued at the depreciated price instead of the cost of reproduction, then they are stuck to the extent of that depreciation, amounting to 1½ per cent per annum. The rate that has been allowed ties in with the development cost of the property. If you take off the accrued depreciation, you will have to increase the fair return rate and it will go way up beyond the 10 per cent usually allowed. I have known of several instances where commissions have valued property at its depreciated value and by so doing have taken away a portion of the value of the property, with a result that the Companies are now asking for higher rates to insure against deficits.

162 This Company has a lot of reciprocating engines in fine physical condition. If they should replace these engines with turbo-generators, and then someone came along and appraised the plant with turbo-generators in place of the old engines, if the old engines had not been amortized, then the Company would have been stuck for all that functional depreciation. This is a risk in the eyes of money investors.

There is also municipal competition. I don't know how it is here, but in other cities the prospect of municipal competition greatly decreases the market value of the securities. In Detroit, for instance, the city is competing with the private street railway in a way that is ruinous to both the city and the company. This strikes the investors and they demand higher return rates to secure the risk they are taking. Municipal competition in San Francisco has ruined the private company, although the city is not running its street railway system at a profit. This risk is hard to compute off hand, but it is known that men won't put their money into these enterprises unless they get 3 or 4 per cent more on the stock than the bond rate, to recoup themselves for the risks they take in addition to their supervisory ownership. If the stockholders are entitled to 4 per cent higher return than the bond holders, that would be 12 per cent return on the stock basis and if it was 50 per cent stock and 50 per cent funded debt, you could not get anything under an average of 10 on the two.

163 If the present high rate of interest were applied to the property value on the present plateau prices, the result would seem to be inequitable. The two things are tied together. What the investor is entitled to have is as much income, measured in purchasing power. If you take both high prices and high interest rates, he will get more than his purchasing power. There is a doubling up, due to the rise in the prices of construction and the rise in the interest rate, so it seems to me the equitable thing to consider is the plateau of prices we are now coming to, say 1.6 or 1.7 times the pre war price, and the pre war fair return rate, say 8 per cent. If the historical record cost of the property and its development cost are taken into consideration, a fair return would have to be 10 per cent. The record cost of this property taken from the ledger, excluding all franchise value and intangibles of that nature, is about $2,100,000 exclusive of some ninety-odd thousand dollars of stores and supplies and working capital. This has been reached by going back forty years into the records of the Company and its predecessors, excluding everything that was at all questionable as to franchise value, working cash, materials and supplies, and going, concern value, and this figure agrees with Mr. Elrod's. We have prepared other figures which show that 8 per cent has not been received for all these years, the failure being due to one reason or another, such as floods, which have occurred here. This shortage under 8 per cent should be treated as a part of the development cost which would then be something like $2,800,000. This development cost method has been in use for some time, particularly by the Wisconsin Railroad Commission. It may not be a principle applicable to all cases, but it has been used by many
164 commissions and does show the true history of the Company. You have what has been the deficit, if any, which in this case is about $600,000 in round numbers, above the investment in the property of $2,200,000 for the Railroad Department. None of the Power Department used for lighting the city is included in that. We have also taken an inventory of the property and checked it with Mr. Elrod, and each of us has appraised that inventory out at prices first that existed prior to the war, and we came out with the figures of about $1,720,000, which includes no brokerage fees or bond discounts, and takes the land at its present value.

The difference between the figures of the record book cost and the appraisal at pre war prices is about four hundred odd thousand dollars, the excess being in the record cost. The first reason for the difference is that when engineers inventory a property they almost always omit some items. The biggest item in the difference is in the estimate of the unit prices. I can illustrate this by an experience I had at Seattle. There had been an appraisal made by one engineering firm of the street railway property of a Seattle company and it came short of the book value of the property by several million dollars—about $6,000,000 on a total of about $24,000,000 value. I was asked to go over the appraisal and inventory to see if I could find the shortage. I spent about twelve months with twenty-five assistants and found discrepancies. There was an item of grade raising, and some $800,000 had been excluded from 165 this appraisal by the engineer who made it, by using the reproduction cost. Also, we discovered that he had left out one whole city ward in appraising the property by wards, the omitted ward containing several hundred thousand dollars' worth of property. A lot of other property was also excluded which the Company actually owned and which should have been included. Some of his unit prices were about 1/3 of what it actually cost to do some of the work. So, in this case, we come in here and estimate as closely as we can on the way present prices are running what it would cost to reproduce. I am not at all certain that we got our prices right, and didn't omit something. So we have added two per cent for these contingencies, but I am not sure that that is enough. I am showing what would keep the record cost above what an inventory now taken on the property would show. I think those two are the principal things, but a third would be that while we attempted to take prices that existed prior to the war from 1881 down to 1919, we have no records by which we can go back to all those years and take out actual costs and apply them to the property. We do not know what it costs for all those poles, rails, etc., and the best we can do is to take a few years prior to the war and apply that as actual cost. For instance, an old car barn was built 30 years ago and we don't know what it cost, but we have got to estimate what it cost at pre war prices. It might have 166 cost twice what our estimate is. All we can say is that we have gotten two figures, one taken from the books of the Company to the best of our accountant's ability, representing the original investment in the plant after taking out franchise value. It may, however, contain some property that was lost in the flood.

I am asked to explain the relationship, if any, existing beween "overhead" as used by engineers and "development" cost. The word overhead is used by different engineers in different ways to mean different things, but the great majority of engineers now speak of overhead as those expenses of construction that occur in addition to the material used and labor directly spent upon the work and the supervision of the work in the field, such as office expense, general management expenses, engineering, supervision and inspection, interest during construction, legal expenses, taxes during construction, and sometimes liability insurance. All this relates to the

construction period and not to operation. Those are the construction costs commonly called overhead costs. Occasionally an engineer will add to that what he calls development cost, and call it an overhead cost. In doing that there would be a deficit which would follow the construction period. The overhead is just as much a cost of the building as the materials used. The fact that it is estimated in percentage leads people to believe that it is more
167 or less intangible, but that is not so. Percentage is used simply because it is more convenient. It will usually run about 15 per cent on a property like this. The overhead cost of this property in our estimate totals about 14 per cent, which is a very conservative estimate and does not include brokerage fees. There is no doubt that brokerage fees in some fashion or other should be taken into consideration, whether it should be added to Plant Account or to the 8 per cent interest charge is a matter of judgment. I usually add it to Plant Account. In this case I estimate the brokerage as about 4 per cent, or $67,000. It would be in addition to the $1,720,000, having been specifically excluded in that figure. Unless there is a raise of the fair return to compensate for that, it should be allowed in the capital. I have never known a proposition as large as this one where securities were sold to the public without incurring brokerage fees or an equivalent expense in advertising by the Company to sell its securities. It is usually cheaper to sell through security dealers. The brokerage fee is not all profit to the bankers. Out of it have to come their expenses for advertising, legal expenses and general office expenses, the fees of engineers who examine the property and of lawyers who pass upon the legal matters. The bankers' net profit, owing to the keenness of competition, is no larger than the ordinary profit in a business transaction. They maintain large staffs of salesmen who are paid good salaries,
168 which also come out of the brokerage fee.

In appraising street railway systems I have never found one where there wasn't some development cost in excess of the fair cost of the property. It will run all the way from 25 per cent to 40 per cent. There is always a substantial deficit in any property I have appraised, assuming 8 per cent to be a fair rate, running back over its history. That is a necessary expense in the development of the system. Before the line is in operation it is necessary to have men and the money with which to pay the engineers for construction. The development cost may best be called a sequel to interest during construction. Nobody questions interest during construction because during that period the property earns nothing, not being in operation, but also when it is put in operation it does not necessarily get the full return for a number of years. If the property is growing, it never quite catches up, as there is always some new development cost, so that if reasonable judgment has been used in the construction, a fair return on the investment during the construction period should be allowed.

This brings up the question of the difference between cost and value in a consideration of this matter. Frequently an attempt is made to discredit development cost on the ground that it adds nothing to the value of the property. It seems to me that this is not the right view. Unquestionably the development cost has to be incurred. The value is something else; it may be more or less than the cost. You should not use value to discredit cost and 169 then use cost to discredit value. We will show the record cost of this property at $2,800,000 for the railway department after making an allowance for depreciation. We will show that it would cost $3,500,000 to reproduce this property as of the present time. We will also show that the accrued depreciation is somewhere in the neighborhood of 26 per cent, that is on the pre war basis of cost. If the cost of reproduction were $3,600,000 and you take 25 per cent off, you would have $2,700,000 as the depreciated value of the property at present prices. That is not its cost; the other one is its cost—development cost plus the book record. So it seems to me on the principles of Smyth v. Ames, the Court ought to have before it the original cost of the property, the cost of reproduction at present prices and the depreciation in the property. Another important factor also should be considered, the market value of the stock and bonds, if ascertainable. It has come to be pretty well settled that the market price of the stock and bonds depends largely upon the earnings of the Company and are not within the principles of Smyth v. Ames.

Agreement.

Mr. Tucker: It is agreed between Counsel, that Article 361, Revised Ordinance of the City of Galveston, dated June 1, 1917, as set forth in the bill of complaint in this case is accurately stated in the bill and is to have the same force and effect as though it were here introduced in evidence, in due form. The same agreement is made with reference to the ordinance passed by the Board of 170 Commissioners of the City of Galveston on September 19, 1918, as set forth in paragraph 6, of the bill of complaint; said ordinance being entitled "An Ordinance Authorizing and Permitting the Galveston Electric Company to fix the minimum rate of fare at 6¢ for each full fare and 3¢ for each half fare."

The same agreement is made with reference to the ordinance passed by the Board of Commissioners of the City of Galveston on June 5, 1919, as set forth in paragraph 7, of the bill of complaint, said ordinance being entitled, "An Ordinance fixing the Maximum rate of fares to be charged by the Galveston Electric Company at five cents for each full fare and two and a half cents for each half fare."

Mr. Mills: It is agreed that on September 8, 1900, a West India Hurricane struck the city of Galveston causing a loss of approximately 6,000 lives and many millions of dollars in property values; that as a result of this hurricane the then power house of the then Galveston City Railroad, the predecessor of plaintiff, was practically totally demolished, large portions of its tracks washed away and considerable portions of its other tangible property destroyed. It is further agreed that storms of similar nature although not of so

great intensity, struck the city of Galveston in the years 1875, 1886 and 1909 and also in the year 1915, a West India hurricane struck the city of Galveston, which lasted considerably longer than the storm of 1900, but that there was comparatively little property damage and practically no loss of life in the 1915 storm because of the
protective measures in the nature of grade raising and sea-
171 wall protection, which had been completed prior to 1915.
Is that satisfactory to go into the record?

Mr. Wayman: Except as to the extent of damage that was done to the street railway properties in 1900, as we do not know anything about that.

Mr. Mills: Do you accept the agreement with that limitation then?

Mr. Wayman: Yes, sir.

Mr. Mills: All right then.

Mr. Anderson: In connection with that stipulation that the storm of 1909 did not damage the property of the plaintiff.

Mr. Mills: Yes, sir.

Mr. Tucker: Counsel for the complainant agrees to these modifications so far as the stipulation is concerned, but they will undertake to prove these facts by the submission of evidence.

Examination of Mr. Gillette resumed:

I am asked to explain what I mean by unit price. For appraising purposes we divide the property into units. For example, we call each pole a unit and the poles of one size and class, and we determine what the cost of material is per unit and the cost of the labor necessary to put the pole in place is added in order to get the unit price. The same method is used with reference to the generators and to each engine—that is the plant unit. For appraisal pur-
poses we apply a price to each and that price is called the unit
172 price of that particular part of the plant. To the unit price
must be added the overheads that I have spoken of to get the
total cost of reproduction of the property. The record cost statement is taken from the ledgers with all abandoned property written off. In this particular case everything which has been abandoned in the last fifteen years, during the management of Stone and Webster, has been written off. The books are very accurately kept. If, for example, they replace a sixty-pound rail with an eighty-pound rail, they deduct the original cost of the sixty-pound rail and add the cost of the eighty-pound rail to the Plant Account, so that the Plant Account is only increased by the difference in cost, and the same thing would be true with reference to a car. Thus, there is no padding of the account and everything that ought to be taken out as abandoned property is taken out. A reciprocating engine may be replaced by a turbo-generator. The old units that have come out will be deducted from the Plant Account at the original cost and the new units that go in will be added to the Plant Account, so that the addition to the Plant Account is merely the difference between the two.

I have given three methods of determining values, following Smyth

v. Ames, by taking the record cost; then the reproduction cost on the historical basis that I have explained and lastly a reproduction on the present unit price basis. In arriving at the present price basis we take the same quantities of each unit that we had in the other valuation and apply to those quantities not the prices
173 that existed in 1913, but the prices that exist today, which show a material cost and labor cost much higher than in 1913 and the result is a total which we call "cost of reproduction at present prices." The total estimated cost of reproduction of this property as of June 30, 1920, is $3,472,094. By the reproduction on historical record basis the cost is $1,720,000 plus the brokerage fee of about $67,000, or a total of $1,787,000 as the pre war cost as contrasted with the cost of reproduction. In other words, the present cost is about double the pre war cost. In estimating the depreciation for the old plant, assuming that the prices had not changed, I figured that the plant had depreciated $390,000, or about 25 per cent of the total property value, based on the reproduction of historical basis of pre war prices. Following the same percentage on each item of reproduction cost we get a similar percentage of depreciation and a figure of $835,000, and using that figure we get a value of $2,687,000 for the depreciated present value of the property, just the physical bare bones of the property.

Depreciation that has actually taken place at the time of the appraisal is called accrued depreciation, to distinguish it from annual depreciation. It does not mean the renewals which are another matter. It is what has not been provided for out of operating expenses, in this case amounting to $390,000, while the renewals have been provided for.

174 My method of arriving at that was as follows: My assistant made a very careful inspection of the property, each class of the property, and undertook to estimate the percentage conditions. By percentage condition I mean that if a pole, for example, had depreciated 30 per cent, its present condition would be 70 per cent of the new. Where the age or length of time that the article has been in service could be definitely ascertained you could calculate the percentage conditions. For instance, if it is known that the life of a pole was ten years and the age of that particular pole was five years, either one of two methods could be used. By the so called straight line formula the pole would be depreciated a certain amount every year; in the case of a pole with a life of ten years, at 10 per cent per annum, and at five years it would be half gone—50 per cent gone. The other method which I consider more accurate is to estimate what sinking fund would have to be set aside at the beginning of the life of the pole in order to redeem the pole at the end of its life. Then the amount in the sinking fund every day in its life would represent the accrued depreciation up to that time, so that at the end of five years you would not have 50 per cent in there but around 40 or 45 per cent, because it compounds, and will run up larger towards the end. So the first formula gives a greater depreciation than the second. I have taken the sinking fund formula wherever we have made out estimates, based upon the age

and the respective life of a car, for instance. My difference from Mr. Elrod's estimates of accrued depreciation is largely due to
175 his having used the straight line formula. The main difference consists in three items on which we are not so greatly apart and which will not make so much difference in his final calculations of rates. I would like to explain another thing. I found a power plant building, built quite a number of years ago but in splendid condition, with practically no physical depreciation, so I gave it 95 per cent condition on the theory that if we were going to design a building for the same service we would build practically the same kind of building. On the straight line formula this building would be depreciated, say 20 per cent. My method has been to look at its physical condition and assign a value to it.

To continue the story of my work in connection with this property, I took the field notes of the engineers and went over the entire property. I inspected every car that came into the barns at night, checking off the physical condition. I had the known ages of the cars so that I had that definitely before me, and then considering the conditions of the cars and their respective uses I estimated how much longer each class would remain in service. A large portion are only good for a year and others are no good at all, and we depreciated them to zero. Mr. Elrod and I did not differ much about the rolling stock. The rails are about 60 per cent in sand or shell ballast and have corroded pretty rapidly. My conclusion was that the life of a rail in that ballast would be about fifteen years. Over the whole country the average life would be near twenty-five years. Again Mr. Elrod and I did not differ materially on the actual dollars of the track and road bed.

176 I am asked o explain the term "depreciation annuity" and the difference between depreciation and depreciation annuity. This new plant has been practically rebuilt in the last twenty years, since the flood of 1900, so that for a clear statement of what the annual cost of up-keep has been, it is correct to take the last twenty years. On page 97 of my report I have a table that shows the maintenance and repairs for each year for those twenty years. I have pro-rated to the replacements that have been charged out through the depreciation reserve separately. In addition to that I have added an accrued depreciation of $390,000, practically all of which has occurred in those twenty years, and have distributed it each year over the entire twenty years. If the system had been kept at 100 per cent condition, that money would have had to have been spent and if it had gotten from current earnings enough to take care of it, it would now have a reserve fund of that amount, $390,000. As a matter of fact, you would have to put in about $20,000 per year to take care of that depreciation. Nineteen and one half years have elapsed and the average cost of the plant at the middle of each year, excluding stores and supplies, is $1,300,000. That is based upon figuring backward from practically the figures Mr. Elrod and I agreed upon. For example, on June 30, 1920 $1,654,000 in round numbers, and subtracting the additions that have been made to the plant, we find

what the cost of pre war reproduction would have been in any year. During that twenty year period the average investment was about $1,320,000. The average maintenance per annum was $42,-
177 000; the average renewals charged through the reserve but not charged to maintenance, $21,300; the average that should have been put in annually to take care of this $390,000 depreciation would be $20,000 per year. The sum total of those up-keep charges would be $83,300 per year, being small in the early years and larger in the late years. That is 6.4 per cent per annum of the average cost of reproduction at pre war prices, about half of which, namely 3.23 per cent, was current maintenance, and the balance, 3.22 per cent, was renewals and depreciation annuity that should have been set aside as a reserve and accumulated so as now to equal the accrued depreciation of $390,000. One of the objects of this is to show whether the maintenance and renewal expenditures in the last twelve months were normal. I think everybody will agree that maintenance expenses are practically twice what they were in these preceding years, the cost of each unit and labor having practically doubled. So, if 3.23 per cent was a correct maintenance charge for the past years, double that, or 6.46 per cent would be a normal maintenance. Maintenance is something you have to pay right now or in the very near future out of operating expenses at the high prices obtaining for labor and material. As to renewals, 3.22 per cent, I would not change the percentage. To renew a unit it costs practically double what it did before the war, but half of that is charged to renewal while the other half is put in the capital account. Doubling the current maintenance rate from 3.23 per cent to 6.46 per cent and adding to it 3.22 per cent for depreciation annuity gives you almost
178 10 per cent. So you should take ten per cent of this $1,650,-
000 to get the annual up-keep charges on the plant, which would be about $165,000. I do not say that 10 per cent should be set aside annually for up-keep, I say that you should take 10 per cent and deduct the amount that is actually spent in each year for maintenance and renewals. For instance, last year I think they spent $110,000 and the difference would be upkeep unprovided for. On that basis it would be about 3.6 per cent for the depreciation annuity for that year. During the last twenty years nothing has been set up for depreciation, and what were called the net earnings, which were the gross earnings minus the operating expenses, were not the true earnings. What they spent for maintenance was included, but there was depreciation accruing for which they did not set aside any depreciation annuity. The average net earnings for this period were 6¼ per cent, and if my figure of 1½ per cent for annual depreciation annuity to take care of accruing but not matured depreciation is correct, by deducting that, the net earnings will be 5 per cent. For the last twenty years after providing for maintenance the Company would have had to have 3 1/10 per cent for annuity on top of the 3.4 per cent for maintenance to provide for renewals. There is no strict dividing line between maintenance and renewals in any accounting system. During the last twenty years during which the plant was reconstructed there was spent some four hundred odd thousand dol-

lars for renewals, as shown by the books, in addition to the maintenance which was about twice that. The renewal item is 1.6 per cent,
which makes up a portion of the depreciation annuity for the
179 extent that the property has been consumed in service. If
this had not been done, the depreciation would be about double that. If they had not made the renewals, the depreciation would be about twice $390,000. The 3.4 per cent for renewals is another figure; that is for the current repairs and maintenance. This would be charged directly to operating expenses and other current repairs. Where units were actually renewed the renewals would be charged to the depreciation account, but in addition to that there was $390,000 accrued depreciation which, spread over the whole period, amounted to about 1½ per cent. That much the Company should have had in order to maintain the investment intact.

This Company made a fair return of 8 per cent and in addition this depreciation annuity in ten years out of the forty; the rest of the time they did not make 8 per cent if the 1½ per cent annuity for accruing depreciation is taken out. During the last twenty years they had four good years, 1913 to 1917; they were just about getting on their feet when the war struck them. Now, with rising wages and rising prices they are in bad shape. The 1½ per cent depreciation annuity for accruing depreciation was not made and so was not charged at all.

Table 1 shows that the agreed plant record cost is about $2,100,000. My estimate of the original cost with the land at pre war value is $1,668,086, or adding supplies and working cash $1,761,686. The depreciation deducted therefrom is in round numbers $390,000. The balance, with depreciation at pre war cost, is $1,371,686 and the development cost associated with that is $1,414,132. The estimated
cost of reproducing the property at present prices is $3,372,000.
180 Deducting depreciation at the same percentage used in the
other case we have a balance of $2,638,858.

Table 2 shows the earnings of the railway department for the year ending June 30, 1920. This shows a gross earning of $548,477. The operating expenses were $394,385 exclusive of taxes. The Interstate Commerce Commission requires taxes to be separated and not called operating expenses, but they really are operating expenses. Taxes for that period on the basis of 80 per cent for the railway and 20 per cent for the light and power departments were $37,008. The operating expenses include current repairs, but replacement charge through the improvement reserve corresponds to what we call depreciation renewals of the plant other than current maintenance, and were $19,545, making the total expense including taxes and money actually spent for replacements $450,948. Deducting that from the gross earnings we have left apparent net earnings amounting to $97,529. The up-keep unprovided for is ascertained as follows: we have shown that for the last twenty years the maintenance and repairs have averaged 3.23 per cent, but that was at pre war cost, so we double that to get present cost, giving 6.46 per cent. The renewals were 1.63 per cent actually paid for and the accrued depreciation not paid for was 1.54 per cent. Now we total these items and get what had been the total up-keep expense to date as a percentage of the total property excluding cash and supplies, and that is 9.63 per cent.

We multiply that by $1,653,728 and we get $159,000 a year
181 as the present cost of up-keep, including the depreciation annuity and everything. As a matter of fact, for the twelve months ending June 30, 1920 the actual maintenance was $80,322 and the replacements were $19,545, or a total for maintenance and replacements of $99,863. Deducting that from the $159,000 which we have shown to be the proper amount to allow, we have up-keep unprovided for, or depreciation annuity if you want to call it that, $59,133 which is 3.6 per cent, and that 3.6 per cent is the depreciation annuity that should be provided for currently out of each year's earnings. Deducting the unprovided depreciation annuity that has not been deducted, shows true earnings of $38,396 in round numbers for the year ending June 30, 1920 for the railway department. Taking the record cost of the property at $2,169,000, that true net earnings was only 1.31 per cent. Taking the investment cost including the development cost of $2,785,000 the percentage was 1.02 per cent. Taking my estimate, the original cost of the land and the $1,761,000 the true net earnings were 1.16 per cent. Taking the estimate of the cost of reproducing the property now, $3,472,000 the true net earnings were .82 per cent. Taking the estimated cost of reproducing the plant now less depreciation, the true net earnings were 1.08 per cent. Even the apparent net earnings on none of these values reaches as high as 5 per cent before making any allowance for depreciation annuity.

Assuming that the proper depreciation annuity is 3.6 per cent and a fair return is 8 per cent, the Company would have failed to earn what it should have earned on the original cost basis by 6.4 per cent. You would have to take 6.4 per cent of $1,761,000
182 to get a fair return for that year and that is about $112,000 that you fail to get. The value of reproduction reduced to the plateau price basis would be about $2,700,000. Another way of figuring is to multiply the pre war cost by 1.6. On that basis the Company would have earned just a shade over 1 per cent and would have a deficit of 7 per cent on an 8 per cent fair return basis, and a deficit of 9 per cent on a 10 per cent fair return basis. This analysis includes only the twelve months' period when the five cent fare was in operation. I have made no similar analysis under the six cent fare period.

Starting in 1916 the maintenance dropped off to a very marked degree for three years, although prices were rising very rapidly. Those years were sub-normal in maintenance, for as everyone knows during the war these Companies were unable to get materials which they needed to make their repairs, and later were enjoined by the government not to buy any more material than they needed at that time so as to leave as much as possible for war purposes. If the years of 1916 to date are eliminated and the preceding fifteen years are taken as a criterion for maintenance, we find that it is 3.4 per cent. So, in taking the entire period where the Company is getting the worst of it by an amount that would vary between .4 and .5 of

1 per cent, it amounts to about $8,000 a year, to the extent that the public rather than the Company was favored in my analysis.

In figuring the development cost I used the Wisconsin method. Another method is the Alvord method, which is largely
183 hypothetical. My method rests upon the actual history of
the Company. A third theory is a modification of the Alvord theory, known as the Competitive Theory. This assumes that the city contemplates buying the property. The city engineers could tell about how much it would cost to build the plant, and then the question arises how much it would cost to develop the business. Figuring the competition with the existing Company the development cost would be ruinous beyond degree. The development cost is computed on page 107 in my report. I have assumed that the Company is regarded as an agent which has been operating for some forty years and has spent certain sums of money for the plant, certain other sums for operating expense, taxes, and matured depreciation, and the question then arises whether it had received a fair return from the public during the period. It is a very simple matter to ascertain from the record how much has been spent for plant, operating expense, taxes, etc. This I have added together and put in column D. In column C is the total amount of money paid in by the public, or the gross earnings of the Company. Now assuming a rate of fair return of 8 per cent on the money paid out and crediting the public with the sum of 8 per cent paid by it, and computing these percentages, we have in column E a compound interest factor for each of those years which gives you the result in column F. Multiplying E by D you get the amount which, in the year 1881, would amount at the end of nearly forty years to that shown in column F and would be what the Company is credited with having paid out and received compound interest on. Column I is what the public has paid in and credited with at com-
184 pound interest, and the sum total at the end of the year 1919,
$45,328,500 is credited to the Company as against $42,646,600 credited to the public. Now we have to add to that to bring it down to July 1st what has happened in the last six months, or roughly 4 per cent for six months on $45,000,000 plus operating expenses. That shows the final total credited to the Company of $47,409,878 to correspond with the credit to the public of $44,624,064. Deducting the last figures gives an investment in the property of $2,785,318 which is the sum of money that the public would have to pay the Company to recoup it for all its investment, all its operating expenses and taxes and give it 8 per cent at the end of every year down to date. A portion of that is development cost and depends entirely upon what is determined to be the present value of the property. The investment shown in this table plus additions to plant is $2,168,922. Deducting from that the estimated accrued depreciation of $390,000 gives a depreciated property value of $1,778,922. Deducting that depreciated investment from the $2,785,318 you get the development cost, $1,006,896. Whatever else you take for the depreciated value, you should deduct it from the residual investment of $2,168,000 in order to get the actual

development cost. If you regard the property as not depreciated at all for rate making purposes, you would deduct the investment value from $2,785,000 and you would get about $620,000 in round numbers as development cost, and the residual investment, estimating 8 per cent as a fair return, is $2,168,000, assuming that the Company was entitled to 8 per cent on all it paid into the property for
185 every year. Compound rather than simple interest is used in this connection because the Company is entitled to 8 per cent annually so as to be able to reinvest it and get a return for the next year upon the amount reinvested. If simple interest only were allowed, the result would be inequitable. By the Wisconsin method the compounding would be done just the same only it would not show.

I have stated this on the basis of a forty year period. If I had taken it for a twenty year period the development cost would have been $1,710,300 as against $1,006,895. That amount, I believe, would be ex*h*orbitant. It would be a cost and not merely a value. It was not money actually spent but partly spent and partly lost by failure to get a fair return.

Cross-examination:

The Galveston Electric Company was incorporated April 28, 1905 for a term of fifty years with a capital stock of $2,000,000 divided into two thousand shares of the par value of $100 each. On May 1, 1905 it purchased all the properties of the Galveston City Railway, its immediate predecessor, which was incorporated December 13, 1900 and acquired the property from Charles F. Hotchkiss and others. Charles F. Hotchkiss and his associates purchased the property at foreclosure sale on December 18, 1900 from a receiver. Charles F. Hotchkiss purchased the property for $950,000 paid in securities. The property has been operated continually from 1905 to the present time by the Galveston Electric Company. The Galveston Electric Company also has all this time operated an electric light and power department as well as the street
186 railway department. The street railway department purchases some outside power from the interurban in addition to what it gets from the power department. The inter-urban is also a Stone and Webster property. The power generated by the Galveston Electric Company for its electric light and power business is generated solely at the Galveston power house. There are separate generators for the two departments but the same boilers are used jointly. I have allocated the plant value as between the two departments on several different bases. First I took the peak-load of the two separate departments and that gave an allocation of 54 per cent to the railway department and 46 per cent to the light and power. Then we also looked at the kilowatt-hours consumed by the two classes of service and that was about 50 per cent for each. I also set up what each would require in the way of plant operating expenses if it were a separate company and then allocated on that basis roughly and got about the same result, namely a 50-50 proposition. Consequently Mr. Elrod and I agreed substantially on a 50

per cent allocation in arriving at the $1,720,000 figure and at the $2,100,000 figure.

The operating expenses were not allocated entirely on the same
basis. For example, the taxes were allocated in proportion to the
investment in the two separate plants, or about 80 per cent for recent
years for the railway department and 20 per cent for light and
power. The Company itself allocates on various bases. This
187 I have not gone into myself, but I understand that my accountant and Mr. Elrod substantially agree on this allocation.

The records of the Company are in good condition, commencing in the year 1905 they disclose all items of operating expenses that I have taken into consideration in making my estimates—the items referred to as replacements and maintenance, legal expenses and general expenses.

By Mr. Anderson:

Q. "Now, you say that you made an inventory of what you call the bare bones of the property?"

A. "Yes, sir, I call it the physical plant."

Q. "You call it the physical plant instead of the bare bones?"

A. "Yes, sir."

Q. "The physical plant is the plant as it stands aside from overhead?"

A. "Yes, sir, the inventory is all on the units of the property, such as cars, poles, rails, ties and so on."

Mr. Elrod and I agreed upon an overhead as a percentage of the basic valuation, exclusive of the land, of 14 per cent, or $200,000 in money. This overhead was composed of engineering, inspection, business management, interest during construction and incidentals such as insurance. It included injuries and damages made in construction work, general expenses and organization cost, but excluded taxes during construction amounting to about one-half of one per cent, and bond discount and brokerage fees. By organization cost I mean the organization preliminary to construction. In this particular case, as the plant has been largely built by piece-meal, it amounts to very little. The property purchased by the Company in 1905 was a going concern, although in 1900, after the storm, it was pretty nearly gone. It was electrified back in the early 90's,
around 1890. There was no competing street railway in 1905 and
has been none since. There is now no competition by jitneys.
188 In my valuation I have presented three separate valuations; one based on the book value, called the record cost; the second on the historical value and the third on present day prices, as of June 30, 1920. I do not claim that the property ought to be valued at present day prices. I present these three valuations having in mind the old Smyth v. Ames decision which I have always followed in preparing data. I also had in mind the Brooklyn Borough Gas case. I had Smyth and Ames in mind at the time I compiled my reproduction cost at present day prices. My valua-

ion based on historical cost was made up by taking the several units which appear in the inventory and applying them to prices prevailing at the time of the installation. I have included in the historical valuation prices paid by the Company for installation during the years 1915 through 1920. For the years 1917 to date the figure was very small, only about $120,000 or 8 per cent of the grand total. In making my valuation on the basis of the record cost I took the figures from the books of the present Company and its predecessors, commencing with the year 1881. I have eliminated from the accounts of the predecessor Company all items relating to the hotel on Galveston beach, which it operated. I think that there were some losses prior to 1900 on account of the maintenance of the hotel property. If there were also any losses from real estate speculation, I have excluded all of them. I don't know how many years the beach hotel was maintained by the Company. Part of the cost of raising the grade begun in 1903 or 1904 following the 1900 storm was paid by the Galveston Electric Company. A total of about $136,000 was paid by the Galveston Street
189 Railway Company and assigned to the street railway department. We pro-rated it to the street railway department and included it in the final agreed figure.

The Galveston Electric Company has maintained a depreciation reserve, not at any fixed per cent, however. They put into it what they could spare out of earnings after paying interest on the preferred stock and they have spent out of it a total of some $400,000 in the last fifteen years for renewals. The funded indebtedness, including $100,000 worth of notes is in the neighborhood of $1,400,000. There is $1,300,000 of bonds and $100,000 of notes, and about $1,500,000 of stock. In my direct examination, in speaking of the interest rates which the Company was entitled to earn, I referred to certain risks to be taken into consideration in determining the fair return. I said that 8 per cent was the fair return for the bond investment on well secured property and 10 per cent was a fair return on the whole property, including the return to the stockholders. One of the risks was another storm. Since the 1900 storm I have heard that there were storms in 1909 and 1915. I don't know what damage was done to property of the plaintiff in 1909, but I think there was considerable damage to its rolling stock and tracks in 1915 by saturation by salt water and the action of the salt; I don't know to what extent. It is difficult, as I have said, to allocate the specific amount of these risks, but they are there and weigh to some extent on the mind of the investor. Although my report shows that in 1915, 1916 and 1917 the plaintiff earned
190 a fair return, it would not necessarily be after paying damages caused by the 1915 storm which was not observable at the time. The rusting following saturation of the road-bed with salt water comes out in later years.

I know of no movement to require this Company to place its wires underground, but it is one of the things to be considered, as it is likely to happen any time. By wires I mean the distribution lines, not the trolley wires. I said that it frequently happens that no provision is made for a depreciation reserve, and later on there is a depreciation not provided for and that increases the risk to the investor. In this case our engineers have inspected all the various units of the inventory and have undertaken to show what the accrued depreciation was at the time the inspection was made. We came to the conclusion that there is $390,000 accrued depreciation in the property and if you pro-rate that over the last twenty years, a certain amount each year to the property, it amounts to 1½ per cent on the plant as it then existed each year. It was not earned, because the earnings were insufficient to yield that, so if the Court should give a depreciated value of the property, the stockholders would have lost the equivalent of that—$390,000. I said that as long as there are no definite fixed rules of valuation there is always the danger there, that the actual depreciated values will be assigned to the property for rate making purposes, and that is one of the risks that the stockholders have in mind—that the Court or Commission would go wrong and give a depreciated value in making rates, although the depreciation has never been earned.

191 Even though the depreciation is right, it ought to be offset by development cost. It is more than offset by development cost in this case. If the city would enter into a binding agreement with the Company, protecting its return on full undepreciated value although it had no fund to offset the accrued depreciation, then you would have to earn and set aside each year only enough to make actual replacements required in such year. Under such circumstances the Company would not have to build up a reserve to take care of the normal amount of accrued depreciation. But the City has not made any such agreement and so the Company is entitled to earn its full allowance for depreciation. I am asking the Court to allow a depreciation reserve to be taken out of the gross earnings. If that is done in future years, the 1½ per cent would be gotten by the Company and it would, plus the amount actually spent, make 3.6 per cent. If that was done, then the Company should be required to maintain its property completely out of that reserve and never come forward with any claim for a deficit on that account, as it would always have enough to maintain its property in proper condition, provided of course that it earned it. The American Telephone and Telegraph Company has built up a depreciation reserve equal to about 25 per cent of its total plant cost to insure them against heavy renewals. They are now facing renewals of hand switch boards with automatic switch boards. The reserve provides the fund for this, although the replacement comes very unexpectedly.

192 I know of no application made to the Court for a valuation of its property by the Company previous to this one. For a period of fifteen years it operated its street railway department at a loss, if the depreciation reserve is taken out on the basis of a fair return. I am simply showing the facts, not asking that these losses be made good. My Development cost assumes a fair return of 8 per cent. What weight it will have with the Court I don't know. I understand that the light and power department

is operated under a rate schedule made by the City Commissioners. I understand as a legal proposition that the rates for the light and power department are not involved in the present proceeding. We did not value the entire property, but made a rough approximation for the purpose of pro-rating things that should be pro-rated. The total amount pro-rated for the Electric Light Department is only $186,000 out of a total of $1,800,000.

I have stated that I know of no present plan here for municipal competition, as the plaintiff has a monopoly at the present time.

I figured the development cost as $600,000 over and above the $2,100,000 record value of the property. The three methods of figuring development cost are the only ones I know of. I
193 didn't say that the Wisconsin method was not to be used in all cases, I said that the result by applying it was not such as to be recognizable in some instances. It shows what the property first cost on the assumption of a reasonable return, if we have the correct figures. There are plenty of cases I have run across where engineering during construction has been excessively high. This fact would lead to its being scaled down to a reasonable amount, but not to its being excluded. I have not included development cost in overhead, although interest during construction is analagous to development cost as it is a deficit on money invested in the construction. I have taken interest during construction at 3 per cent on the whole sum of $1,472,000, the historical value. That included some of the overhead, engineering $60,000 and legal expenses $7,000. The latter item was estimated, based upon general experience. I did not find it actually in the records. We have found that about 15 per cent is the sum total of overhead and that on the average it is divided about 5 per cent for engineering, 5 per cent for general expenses and the balance for various items such as legal expenses. I now recall that the organization expense was actually $8,051 so that my assumed expenses are smaller than that sum. I found that during the last fifteen years seven items of brokerage fees, bond discounts, etc., had been paid amounting to $50,975 unapportioned for the two departments. We apportioned $38,232 to the railway department. I do not think the Courts are agreed as to allowing brokerage fees. These brokerage fees
194 commenced in 1908 with $17,565—1910, $9,310—1911, $5,850—1912, $1,750—1913, $16,500. If these amounts had been amortized during the fifteen years, the $38,000 would not be added to capital account of the street railway department, but they have not been amortized; they still stand on the accounts. The Company has not had the earnings to do it. The effect of amortization would be to raise the rates because you not only have to get your interest, but you have to set aside a sinking fund to amortize so that the public has nothing to lose and nothing to gain. The $38,000 is in the capital account as a matter of history and I think it should be there as a matter of fact. I think the Courts are not agreed that it should be considered, although I have made no study of them on this particular question. In the English Telephone Purchase case the highest Court of Great Britain allowed a per cent

brokerage fee. I added $67,000 or 4 per cent for brokerage fees. The books of the Company showed that $50,000 had been paid but for a period in which only about half of the property was built. The figure of 4 per cent is used as a fair amount based upon similar properties. In the set-up of record value I have only included the $38,000, but in my estimate of reproduction cost I have used the 4 per cent, making $67,000.

I am unable to say what part of the property disappeared in the storm of 1900. It may be that some of the difference of $400,000 between the historical value and the record value is due to
195 these items and other replacements which disappeared
through wear, obsolescence, etc., but I think there is some portion of that that was not retired from the plant account although I cannot say how much. I think we have underestimated the value of this property during the last fifteen years by about $100,000 although I do not know why, on the historical basis. In the estimate of the development cost I took into consideration the deficits from year to year. I cannot state what caused those deficits, whether poor management or some other cause. If caused by poor management, it should not be added to the capital value of the property.

As of June 30, 1920, the replacement reserve was $202,000, of which about $22,000 had been appropriated, leaving a net of around $180,000 in the reserve. During the last fifteen or twenty years there has been something like $300,000 spent out of the reserve and there is still in it about $180,000. It includes the reserve for both the electric light and power and railway departments. It was taken out of net earnings. Its purpose was to furnish a fund from which to make renewals of the larger elements, either through wear and tear or obsolescence. It corresponds to a depreciation fund, although as a matter of the accounting the reserve is carried on the books as a liability, while a depreciation fund would be carried on the asset side as a given amount of cash placed in that particular fund.

196 Over the period of nineteen and one-half years the maintenance and repairs averaged 3.23 per cent, slightly higher than that if you take the fifteen years preceding the war years of 1916-17-18 & '19 when the maintenance was subnormal. On page 97 of my report I show that the actual replacement from reserves and surplus was 1.63 per cent and that the accrued depreciation on the property amounting to $390,000 would require another 1.54 per cent. Adding those three items together you get a total up-keep cost, a normal or average up-keep cost, of 9.63. Multiplying that by the amount of the depreciable plant as of June 30, 1920—$1,653,000 in round numbers—we get the sum total for the year 1920, ending June 30, of $159,000, which would be the normal up-keep expense for maintenance, depreciation, and to take care of accrued depreciation as well as the renewals that are actually paid. The actual expenditures for that year are $80,322 for maintenance and $19,545 for replacements from the reserve fund, so that there was actually paid out in that year $99,867 which, deducted from the $159,000, would leave $59,133 of up-keep unprovided for through the current

operating expenses or through the replacements from the reserve. The $59,000 covers both the depreciation fund and any subnormal maintenance. Provided an annual depreciation fund of 3½ or 4 per cent was set aside and was sufficient, it would provide a fund for up-keep unprovided for. I charge this item of $19,545 to up-keep and take it out of gross earnings instead of taking it out of the depreciation fund, because if I had not it would have swelled
197 the up-keep unprovided for to $78,000. Assuming that that
has not been spent, then the amount that should be set aside is $78,000 instead of $59,000. The only way to determine what should be set aside is to follow the history of the Company, see what it has spent for maintenance and repairs and renewals and what they should have set aside to provide for the accrued depreciation in the property if the earnings were sufficient. Having established that the total sum for the year ending June 30, 1920 should have been $159,000, deduct from that what was spent for maintenance and renewals and you have the balance unprovided for. The $19,545 represents the original cost of the property that has been taken out of replacement with other property at the original cost. Any increment in that over and above the actual cost of the property replacement would go into capital account. But this is not that at all; it is replacements, and any additions to capital account have gone into capital account. These replacements were worn out and obsolete, and depreciated articles are offsets to the charge of depreciation and should be taken out of the depreciation fund if it is sufficient, but in this case that fund has not existed. This $19,000 was charged to and came out of the depreciation reserve, but in addition to that, which was actually spent, and in addition to the total maintenance expenditure of $80,000, there was also up-keep unprovided for amounting to $59,133. Assuming that the proper amount has been laid aside each year for depreciation reserve so as to take care of what is now accrued depreciation, amounting to $390,000, the balance in the reserve at any time would equal the accrued depreciation in the property at that time, replacements being taken care of by taking money out of the fund as they are
198 made. In my set-up these replacements are not included
twice. The item of $390,000 does not include the item of $59,000. $390,000 represents accrued depreciation in the property to provide for which, during the past twenty years, if a reserve had been built up, it would take about $20,000 a year as an average, starting with $14,700 and working up to $25,400 each year. In addition to this the Company actually spent for renewals $416,832 in that period. As the Company received less than 8 per cent on its investment during this time, any reserve that they have built up has been at a sacrifice. In the year 1920, to keep them whole, in addition to what they actually spent they should have put aside $59,133 which is about 3.6 per cent of the valuation which I am using.

As to maintenance. The total maintenance for the year ending June 30, 1920 was $80,322, which was sub-normal. Taking the average maintenance at 6.46 per cent and multiplying it by

$1,600,000 gives the normal maintenance for the year ending June 30, 1920 based on the history for the last twenty years—$104,000. As only $80,000 was actually spent, it was sub-normal to the extent of $24,000. In my set-up I eliminated that sub-normality, and the item of up-keep unprovided for comes out of $59,000. My up-keep unprovided for covers the annual percentage of depreciation and the sub-normal maintenance. The maintenance for the twenty years in percentage of investment in the plant averaged 3.23 per cent, but this has got to be doubled because today a dollar is only worth half what it was. Applying it to the old base invest-
199 ment figure gives 6.46 per cent as what now should be normal
maintenance upon the pre war cost of the plant. Applying the 3.23 per cent to the cost of the plant at present prices, which is practically double the pre war prices, you get the same result. In 1919 only $64,000 was spent for maintenance but that was sub-normal, and even in 1920 with $80,000 spent there was $24,000 less than the normal maintenance. During the war a good deal of maintenance was deferred, but in making this set-up I make no allowance for that. If I had, I would add on another $10,000 a year and more to the percentage. I have set up only the actual maintenance, but the deferred maintenance can be figured in any year by taking 6.4 per cent times the plant value in that year and subtracting from it the actual maintenance and repairs. The result would be the deferred maintenance. In 1920 the maintenance was nearly double what it was before the war. Additions to property of about $150,000 partly account for this. These additions are due to replacing old units with more valuable property. I use the words, "up-keep cost" to cover everything that falls under the head of maintenance or depreciation. It can be divided into maintenance or repairs, and renewals or depreciation. For instance, the entire replacement of a boiler would be a depreciation charge. The replacement of a tube or any other repairs to it would be a maintenance or repair charge. Any replacement or repair of the plant unit can be charged to depreciation, and any replacement of its parts to renewals and maintenance. Keeping the rails in alignment would be called
maintenance, and the renewal of a rail would be a deprecia-
200 tion charge. In this Company the two have averaged about
equal during the last twenty years, measured in percentage. The $390,000 I have mentioned would be the $20,000 a year average through the twenty year period. This average should not be applied to the year ending June 30, 1920 because the plant has increased in value and the annual amount depends upon the value of the plant for the particular year. For the year 1920 it would be about $25,000. This $25,000 should not be taken out of the $59,000. If you did that, the balance—$34,000—would have to pay for depreciation and deferred maintenance in that year, or sub-normal maintenance. It would not be merely for depreciation. Assuming that the maintenance was sub-normal, you have the $34,000 to take care of depreciation over and above maintenance and to take care of deferred maintenance.

Whatever was expended for maintenance during 1920 was charged

to operation. It amounts to a little over $80,000. In 1919 it amounted to $64,108 and in 1920 to $80,322. In 1920 maintenance is included in the amount of $394,395 of operating expenses. If the amount of maintenance actually expended is a fair average, it should be taken as controlling. To get the fair average I think that the pre war period should be taken and doubled because prices have doubled. In connection with expenditure of $80,000 there was deferred maintenance amounting to about $34,000 not taken care of in that year. I have estimated the present maintenance cost by the percentage 6.4 by doubling the pre war average, to figure
maintenance on a percentage basis of the pre war cost of the
201 property. Whatever prices do in the future, they have not
declined during the year 1920 and so the percentage is correct. Maintenance is always an operating expense which may vary from year to year. It is not correct to take the maintenance actually found in the last year without determining the fair average, although Courts and Commissions frequently do so. The actual maintenance may be sub-normal or super-normal. My percentage allowance gives the normal maintenance. In my opinion the Court should take the flat percentage of the cost of the property to cover both the depreciation annuity and maintenance, to be apportioned as he might see fit, according to the testimony, on account of the inability in accounting methods to always properly differentiate between maintenance and depreciation annuity. You cannot go wrong if the total is right, but you may go wrong on distribution, and if the total is right the rate will be right. Owing to the present cost of maintena-ce the pre war percentage should either be doubled or the base value upon which the percentage is figured should be doubled. The Courts usually leave this question to the engineers and most engineers follow my method. I have never seen it criticised by any Court. It is bomb-proof.

I figure the maintenance for the year 1920 by taking the percentage 6.46 and multiplying it by $1,653,000 which gives in round numbers $104,000. The percentage 6.46 is arrived at by doubling the percentage 3.23 for a small war period and a large pre war period. Taking the entire pre war period alone, it would be 3.4 As during the war the maintenance was sub-normal, I have called it
3.23. Doubling this, because maintenance prices and labor
202 cost have doubled, gives 6.46 as the normal maintenance. It
would be impossible to determine what the maintenance ought to be by inspecting the property, that is, for any one year. I have not investigated and know nothing about the dividends paid by the Galveston Electric Company or whether it has paid interest on its bonds. As to whether it is the duty of the Company to set aside a depreciation reserve before attempting to pay dividends, there are two prevailing views. Many railway companies feel that if they take care of their renewals as they accrue, they need no depreciation annuity and have fought attempts to make them set aside a depreciation annuity. On the other hand the American Telegraph and Telephone Company has always set aside an annuity

and now has a reserve or accrued depreciation fund totaling about 25% of the total physical plant. My opinion is that it is safest to set aside a depreciation fund when you are not assured that the public will give you a full return on your investment. If this Company had set aside a 4 per cent depreciation fund each year, it would now have on hand the amount of $390,000 to take care of the depreciation. If this Company had done that without having its rates increased, it would have gone into receivership. The record cost of the property was $2,168,922. The true net earnings, after setting aside depreciation, would have been 1.77 per cent. It could not have paid its bond interest. I don't know whether any increase in rates was applied for, but the result is, if they were not, that the public is now asked to take care of depreciation which the Company has not provided for.

203 I know nothing about the rates of interest in the City of Galveston except the table of mortgage loans that I have seen.

The figures I gave yesterday for gross earnings were erroneous. I gave them as $538,000—they should have been $548,477 for the year ending June 30, 1920. That changes the return to $38,396 as given on page 1. The apparent net earnings are before providing for $59,000 of up-keep and the true net earnings after providing for it. In the item of taxes in table 2 on page 1 I have included income taxes paid by Stone and Webster, amounting for the railway department to $8,570. I don't know what Court decisions on this point are.

I believe that the plaintiff operates thirty-eight miles of road in Galveston. Galveston is a compact city and hauls are comparatively short. I have not computed the cost per passenger mile or per car mile, but the expense ought to be less than in cities where the haul is longer.

The calculations as to plant cost on page 109½ indicate a residual investment in the property including development cost of $2,744,200 which should be contrasted on page 1 with $2,785,818 covering the forty year history. There is a difference of about $41,100 between the two. Page 109½ shows the record cost. The figure of $575,300 for development cost is found by deducting the property cost from the total investment, including the deficit. That amount is not in excess of depreciated value. It is in excess of the investment
in the property as shown by the records of the Company as
204 agreed upon by Mr. Elrod and myself. It indicates that
they failed to earn accrued depreciation amounting to $390,000 and in addition failed to earn $575,000 during that fifteen year period, making a total of about $965,000 of development cost, including the accrued depreciation in the property. In making up the historical reproduction cost I took the component parts of the property and priced them out at cost prior to the war, except a very small amount built during the war which was put in at its actual cost. The amount of $390,000 for depreciation is taken for both the record cost and the historical reproduction cost because the property is there anyway and the depreciation is there based on the historical cost. Which ever is taken, the accrued depreciation does not change. The figure of $390,000 was arrived at by inspecting the property

and deducting what I thought was the amount of depreciation in connection with the historical cost. The discrepancies of $400,000 between the historical cost and the record cost may be due to various omissions and under-estimates. It looks as if in the record cost the Company had not written off a considerable part of the property that should have been written off by reason of construction or abandonment prior to 1900. That portion, I should guess, could not exceed $200,000. It will not affect the final figure of $2,785,000 as the residual investment in the property, assuming 8 per cent as a fair return. It is not purely arbitrary to take $390,000 from the record price as the depreciation. Unless we have underestimated the property by 12 per cent as I think we may have, $40,000
205 to $50,000 should be added to the $390,000. It is not unusual to find a large discrepancy between the historical cost and the record cost, especially in properties which go back as far as this one does.

I do not know whether there has been any decline in efficiency of the operation of this plant during the war. It all depends on the management. Prices have been declining for three months and I think they will continue to decline for several months, that then the rapidity will come to an end and there will be a slow decline which may run over a period of ten or twelve years, at perhaps 3 per cent per year, as after the Civil War. The decline will probably be slower on account of the money situation. In the financial journals you can get all kinds of opinions. Construction prices lag behind other commodities and will probably descend slower. I do not think it fair to accept the high peak of prices for rate making purposes.

The Wisconsin Railroad Commission usually starts with a bond interest base and adds an additional percentage to get a fair rate base, as 7 per cent for bonds and 2 per cent additional for the stock, to get a fair return to apply to the whole property. In our set-up of the historical price of the property Mr. Elrod and I have taken into consideration the amount that has been expended and charged to capital account since 1914, taking the cost prices from the record wherever the unit cost was given. In the Brooklyn Borough Gas case there had been a pre war appraisal by the Commission and what Judge Hughes did was to add to it the expenditures of the
206 plant after that. I don't think that is a fair method of arriving at values for rate making purposes, for if that is done and only the pre war interest rates are allowed as fair rates, the effect is to give the investor an income of only half the purchasing power which it had in normal pre war times. A higher valuation in this case would affect the owners of the bonds only in that it would give them a larger equity and raise the price of the bonds; otherwise the advantage would be to the stockholders.

I have estimated in my reproduction cost the brokerage fees at 2½ per cent on the assumption that if the plant were to be built new and not piece-meal, it would take $2,500,000 for which the brokerage fee would be 2½ per cent. I used a 4 per cent brokerage fee on the original cost estimate. In regard to development cost, I have simply submitted the facts and have not recommended the application of the Wisconsin method. That method, as regards this particular Company, would show a very large amount. In the case of a company which had been recently organized or had large earnings and no deficits an application of the Wisconsin method would give nothing for going concern value, whereas if a company had been inefficiently managed or had suffered or was suffering severe losses, a very large going concern value would be found. By the Alvord method you would always get some going concern value for a company that was in actual operation, but I would not use it because it is too hypothetical. In my application of the Wisconsin method in one of the tables I have not included any losses which resulted from the operation or ownership of the Beach Hotel 207 or other land operations.

In fixing the amount of agreed overheads Mr. Elrod and I based our judgment as engineers as to proper overhead: the books do not show accurately the real amount. I have stated that some of the generators, some of the cars and the engines are the main items in which there is obsolescence. The car barn might be built further out of the city, if the plant were to be built today, on cheaper land.

The depreciation was determined largely by a careful inspection by my engineers. Of course the result depends somewhat on the fitness of the men who made this inspection. In arriving at the accrued depreciation we considered two main forms of depreciation: first, natural depreciation due to the forces of nature, and second functional or economic depreciation due to the advance in the art or growth of the business rendering equipment obsolete or inadequate. In the power plant we found 5 per cent depreciation, all natural, and there was no functional depreciation. The building itself will last for probably one hundred years and is as efficient as a new building would be. Various engineers would assign different length lives to buildings of this character, according to formulas or plant mortality tables. Such tables do not usually indicate whether a life is natural or functional, or a composite of the two, hence all published data as to average lives of plant units are merely rough approximations and are often exceedingly deceptive as formulas. Our principle has been to determine what the condition of the building is and also to size up whether it has reached the end of its life or is about to reach it through functional depreciation. I say 208 that nobody can tell what the functional life of this building is. Our rate of depreciation averages 26 per cent. On particular articles it ranges from 5 to 100 per cent. What it is will show in connection with each article.

In the historical method we found depreciation to the amount of $390,000. On the reproduction cost new method we found $835,000 by taking the same percentages used in the historical method and applying them to the reproduction new method. An annual depreciation allowance, if made, should be taken on all the property except the stores and supplies, and working cash capital, and the land.

Redirect examination:

I have read Judge Hughes' opinion in the Brooklyn Borough Gas case and find that he was deciding the case in 1918 with respect to a valuation as of December 31, 1916, and that there had been a valuation fixed by the State Commission in 1914 or earlier. He said that in view of the abnormal conditions as to prices and in view of the short time elapsed since the appraisal he did not think it proper to add anything more than the additions to plant that had occurred in the interval. He seemed to assume that prices were going down. That opinion prevailed and still prevails among a great many men who have not studied price levels, but as a matter of fact, after 1918, although the war was about to end instead of dropping they kept on rising. Now they are going down and it is seen that they are not going down anywhere near as fast as it was thought they would. My view is that both the high prices
209 and the double interest rate should not be used. If the high prices were taken, the pre war rate of 8 per cent should be taken, but if the pre war prices were taken, it would not be fair to take 8 per cent as a base for the return. It should be at least 10 per cent or may be higher. With the present bond interest rate around 8 per cent there ought to be at least 2 or 3 per cent more to get a fair return rate.

I have stated that the railway department proportion of the Income Tax payment in 1920 might be excluded from the operating expenses. The same situation will also affect the development cost which I have figured. On page 109 we have calculated the effect of excluding the Federal taxes from the development cost. The total effect in round numbers would be to reduce the development cost by about $33,000.

In my set-up in the reproduction statement I allowed 2½ per cent for brokerage fees. I am not familiar with brokerage fees, but on a sum as large as $2,500,000 that would be about right.

In my valuations I have utterly disregarded the securities that have been issued. As shown from experience what even careful engineers miss in an appraisal, in the Pennsylvania Telephone case I found $1,000,000 in demonstrable underestimates of prices, or in omissions of quantities, which was afterwards allowed by the Commission. There is a somewhat different situation in regard to money than existed after the Civil War. Then the paper money was left in circulation and the amount of population grew so that the
210 country grew up to it. Although there was an excess of money per capita at first, it ceased to be excess in time. At the present time we have a large quantity of gold in the country, 50 per cent more than at the beginning of the war. Foreign nations owe us so much that this gold won't be taken away from us even if the balance of trade turns against us. We have been in this war lenders while during the Civil War we were largely borrowers.

I did not mean to say definitely that the car barns should be moved further out. I have not made sufficient study of the question. The engineers who made the field inspections were my own and have been working for me for years all over the country in charge of very large appraisals.

Neither the overheads during the constructions periods nor the physical valuation which I have computed include anything for so-called going concern value. The overheads which I have allowed do not carry over into the time the concern is being operated, but relate merely to the construction period.

I appraised the Houston Electric Company properties. Regarding the relative density of population and the miles of equivalent single track of the Houston and Galveston Companies, I find by referring to figures that Galveston has about thirty-nine miles of equivalent single track with a population of forty-four thousand, equal to eleven hundred forty persons per mile of track. Houston has eighty-three miles of equivalent single track and a population of one hundred thirty-eight thousand, equal to sixteen hundred sixty people per mile of track, and the Houston track serves a population of about twenty-two thousand people outside the city,
211 so that the track is equivalent to nineteen hundred twenty people per mile. The result is that Houston has a denser population per mile of equivalent single track than Galveston.

I have known Stone and Webster organization management in a general way since 1911, having appraised about a dozen of their properties in Nevada, Washington and Texas. Their management of public utilities properties has seemed to be excellent, as appearing in the records of the Companies as to construction costs and operating expenses. I would say that they were capable public utility managers, at least since 1911, and that their general reputation as far back as 1905 is high. I have read Mr. Bradlee's deposition in this case and agree that centralized management offers great economies in the management of public utilities and has the advantages which Mr. Bradlee has outlined.

To the extent that the replacement reserve of this Company was built up from street railway earnings, it was done at a sacrifice by the owners of the property of a fair return, assuming 8 per cent to be a fair return. Stone and Webster charges 2¼ per cent of the gross earnings for management of railway properties in Galveston. That seems to me a very reasonable charge. The Company itself has an office, a manager and a clerical force in Galveston. Whether the return in this case ought to be based upon the prevailing bond interest rates depends upon what you take as your value for figuring the return.

212 The bond interest rate furnishes a starting point from which to base an estimate of what fair return ought to be according to the relative risks involved. The bonds of this Company were put out on a 5 per cent basis and are still paying 5 per cent. They would have to be sold on the market to yield 8 per cent or more in competition with other bonds of that character. I don't know when they mature. If the Company had built up a reserve in past years, the stockholders would not have received a fair return on the railway investment. I cannot say that it would be an advantage to the public to have had this depreciation reserve set

aside. The question here is what is a fair return A reserve would simply mean that the stockholders had decided to forego a meagre dividend and make it still more meagre. The Company has not maintained its property up to 100 per cent and no Company ever does, whether or not they have a depreciation reserve equal to the actual depreciation. I have estimated the development cost at $575,300 and have added accrued depreciation amounting to $390,000 in the table on page 107. I have not calculated development costs on the historical or pre war base, but on the record cost base. The reproduction at historical unit prices is lower than the record cost.

Exhibit 5 is a table which shows the gross earnings for the year ending June 30, 1920, namely, $528,477 from which is deducted the operating expense for that year including taxes and $8,570, paid as income tax totaling $351,080, leaving a balance of $197,397. The actual amount spent for maintenance during that period was $80,322, but I estimated that it is sub-normal by $26,678. Taking that sub-normal maintenance and adding to it a depreciation 213 annuity of 3.17 on the $1,653,728 gives you a depreciation annuity of $52,000 which is to be taken in addition to the deficit in maintenance of $26,678, giving a total for the three items of $159,000 to be deducted from the apparent net earnings. This leaves true net earnings of $38,397, the amount I have given on page 1. That is all that is available out of which to pay a fair return on the property. This is a different set-up, showing just the same thing and using the same factors as on page 1, to clear up a little better the question of depreciation annuity.

Recross-examination:

The item of $19,545 originally on page 1 I have dropped out, as I am assuming that 3.17 per cent should be the percentage for the depreciation annuity and I thought that the $19,000 item would be confusing and as I reached the same result in the final true net earnings. The figure for maintenance is reached by taking the maintenance percentage which I had assumed as 6.46 per cent upon the cost of the property as of June 30 and showing that the maintenance was sub-normal by $26,678. I combined the sub-normality of maintenance with the depreciation, but it amounts to the same thing, one table leads to the same result as the other. The 3.17 per cent for annual depreciation is on a base of $1,683,728 which I have used all along, the historical reproduction method base. If I used Mr. Elrod's percentage, I would give a less amount by about $13,600 and would leave the true net earnings with which to pay a fair return 214 on the value of the property a little less than $25,000. The $19,545 plus the difference between $52,000 and $59,133—$7,133—equals the $26,678 or the amount of the sub-normal maintenance in my second table. I first figured the average maintenance during the nineteen and one-half years of amounts actually expended. That is in the third column on page 97 which gives a percentage on a pre war basis.

(The volume referred to received as plaintiff's exhibit No. 6.)

George McMullen.

I am Roadmaster in charge of the tracks of the Galveston Electric Company and have held that position since January 1904. When I began, the grade raising of the City of Galveston had just started. It lasted about 7½ years altogether. There were three raises, the first raising of grade lasted about five years, and the boulevard was raised twice. The first time the grade was raised by sand pumped in from barges dredged from a canal. The car tracks of the Galveston Electric Company were raised from 3½ to 11 feet. I was in charge of the track raising. We raised four blocks at a time, raising the tracks with jacks and then putting them on cribbings to meet the height of the sand coming in. It was not practicable to put the tracks on trestle work because the passengers had to get on and off all the time. After all the sand came in the tracks were put in permanent shape. The cars ran continually, carrying passengers, while the grade raising was going on. From about seventy-
215 five to one hundred men were required in the track department at this time instead of about thirty men in ordinary times. They had to work night and day to keep up with the sand which was being pumped in night and day. If the tracks had not been raised they would have been buried from 3 to 11 feet in the sand. This grade raising included about two-thirds of the whole city, starting on the East end and working around to the West end. The second grade raising operation was after the storm in 1915. We had to raise the tracks on the beach and did it in the same way. The third was done the same way as protective work after the 1915 storm.

Charles S. McLin.

I am Superintendent of transportation of the Galveston Electric Company, having been with the Company continuously for twenty-eight years, commencing as a motorman. At the time of the 1900 storm great damage was done to the properties of the Company or its predecessors. The power house was totally destroyed and a portion of the tracks were washed away on the beach front. At the foot of 21st Street there was some six or seven blocks of double track entirely gone, and out in the Denver Reservation there were several blocks of track gone entirely and there wasn't any overhead wire left standing there to speak of, no trolley poles. One car was destroyed entirely, cut right off at the floor with the body gone, and the electric equipment of all the cars that the Company owned was damaged so that the Company had to go back to horse cars for quite a time. At various places the tracks were undermined and the foundation was
216 washed out for from half a block to two blocks and the track was just left hanging. Before the road was fully restored for regular service more than sixty days elapsed. The motors of the cars had to be rewound and some had to be washed out with fresh water to get the salt out and then be baked in an oven which was set up at the car barn, but those which were not wound but baked only

lasted a little while afterwards. Not a single car was serviceable immediately after the storm. The power house equipment was mostly sold for junk. One machine was installed and gave service for a while, but the rest could not be rebuilt.

The 1915 storm did similar damage to the equipment. We saved three cars, but all the other motors had to be rewound. Some track was washed entirely out, something like four or five blocks of it, and quite a good many poles were down and some more track was undermined. A lot of track was covered up with sand from an inch to three feet in many places. It took a good while to get it uncovered by digging with shovels.

Henry E. Elrod, a Witness for the Defendants.

Direct examination:

I am a general and consulting engineer, residing in Dallas, Texas, having been in the general engineering profession some fifteen or eighteen years. I became a consulting engineer in 1912 and since then have done a large amount of construction work in Texas
217 and have made appraisals of the various public utility properties, amounting to something like fifty or sixty million dollars in value. I have made a detailed examination, inventory and appraisal of the property of this Company within the last two or three months and am personally familiar with its plant. I have here a report which is the result of such examination.

I found accrued depreciation in the property amounting to $505,000 in round numbers. I used the straight line method of estimating depreciation in connection with the age and life together with an inspection of the property with an idea of ascertaining the exact condition, and comparing the condition with age and life but giving preference to age and life over inspection, because I felt that the ability to ascertain an accurate estimate of the functional depreciation in portions of equipment or structures is small. It is almost impossible, I believe, to ascertain from inspection just what condition exists as to the probable life of each portion of the equipment. It may appear to have a great life before it but obsolescence or inadequacy may operate against it long before its natural life has been completed. For instance, in the Brush case a brick smoke stack was estimated by their engineer to be in 90 per cent condition. As a matter of fact it had been in place for more than thirty-five years, and before six months more had elapsed was condemned as being unsafe by the engineer who examined it. By application of the age theory there would have been sufficient evidence that it was reaching
218 a point where it should be replaced although at the time of inspection it was apparently good and was 100 per cent efficient.

In my opinion it is next to impossible to make anything like an accurate estimate of functional depreciation. You may have an engine today that seems to be as good as it is possible to get engines and the next year advances in the art may make that engine inefficient, and while it still may be usable and has a long life, another type of engine would be better and more economical. So I have taken this property piece by piece and applied the straight line method supplemented by an inspection for the purpose of arriving at the amount of accrued depreciation. Where inspection has shown mortality tables patently wrong I have discarded them.

Over the whole plant I found a depreciation of 36.7%. Mr. Gillette used a 26 per cent depreciation, but I used a different basis. Although we both used the pre war reproduction base, there might have been different elements that were not included in the total. I applied that percentage to the depreciable property only. My results are summarized in part 2 of my report. I started with the base valuation of $1,720,000 which was agreed upon between Mr. Gillette and myself. I then deducted overheads and real estate, and an item of real estate which I claimed was not being used in the business of transporting passengers—an old abandoned yard for a car barn. I also deducted an item of about $2,000 for unused track. I took out the overheads, working cash, materials and supplies, and
the total deductions amounited to $375,456. A portion of
219 these were put back into value to arrive at my total: over-
heads, working cash, the materials and supplies. I did not put back the unused track, the unused land and $136,281 for grade raising.

I am asked what should be allowed as depreciation annuity and upon what it should be based. I have based my study of depreciation on the actual recorded amount of replacements, that is the amount of depreciation that has occurred in the properties, and I have arrived at it in very much the same manner as Mr. Gillette has arrived at his. The total amount of maintenance, repairs and depreciation amount to about 9½ per cent, the maintenance at 5.5 per cent and the difference of 4 per cent for the annual depreciation charge. I have worked it out differently from Mr. Gillette, although I arrived at that conclusion in my report. Inasmuch as both Mr. Gillette and I use the recorded book costs we arrived at the same final results as far as the percentages for maintenance were concerned, as basis for estimating the normal depreciation and normal maintenance before the war. That percentage is 3.41. During the war period the maintenance was slightly below that. In my opinion the recorded maintenance actually incurred and paid for by the Company during the past twelve months amounting to $80,322 is a fair maintenance. It is not quite double the normal maintenance for the fifteen years prior to the war. Prices of material and probably of labor will not likely be greater and will perhaps be less during the coming year, in my opinion, and I conclude that the amount of recorded maintenance shown by the Company's books for the past twelve months, which is almost double the normal pre
war maintenance, is an ample allowance for maintenance.
220 If our percentages were based on the same base, I think we
would come out very close to the same answer on the matter of maintenance and depreciation. 4 per cent is the amount most generally allowed for utilities of this character for depreciation annuity, although some have been allowed three or even two as a minimum. I have taken 4 per cent.

Maintenance and depreciation are both operating charges. It is a very difficult matter to draw a definite line between the two in many instances. If a larger per cent be allowed for depreciation, then a smaller per cent would have to be allowed for maintenance, and vice versa. Without an analysis nothing but the total can be found. In the past the annuity allowed on utilities has generally been based on a pure assumption of the engineer that so much money was sufficient. From working out several tables I find that 4 per cent is an ample allowance for depreciation and 5.5 per cent is equally sufficient for maintenance. I have assumed in these calculations an 8 per cent return. That is the usual rate allowed for utilities in this state and in my opinion an ample return as well as being the rate asked for by the Company in 1918 or 1919 when it requested an increase in fares. I think it is a fair rate of return for this case.

As a base for the percentage for maintenance we have used recorded maintenance for a number of years to ascertain what the average maintenance is for a number of years. Some years will be
more than others, but by and large over a period of years it
221 is fairly constant. I apply it to the same base as I do the
depreciation annuity, namely to the plant value which is
the only constant value you have. I take out the same items that I took out for depreciation, that is the non-depreciable items, overheads, real estate, working capital, material and supplies.

In 1917 the amount of maintenance charged was $33,983. The damage from the storm of 1915 was charged through depreciation or replacement reserve, I think. I did it this way in order to see where the depreciated plant would come on that basis, to see whether the accrued depreciation would check. I might have set it up on the other basis, just the plain plant values and additions and earnings, as Mr. Gillette did. I am of much the same opinion as Mr. Gillette regarding the Alvord method of arriving at going concern value. It is hypothetical and there is no definite basis to hook onto anywhere so that you can arrive at almost any result within certain limits that you wish to. In some instances the Wisconsin method also is of practically no value. If large deficits occurred during the early history of the Company's life which were occasioned by speculation or bad management, they would show up very sharply in the final results and small amounts compounded
at the fair rate of return over many years would amount in
222 the end to a large aggregate. In the case of this Company I
found that prior to 1900 they were interested in certain land
deals, in the Beach Hotel and the Pavilion on the beach, and so on. The records show that the superseded company in its early days bought a piece of land and gave as a consideration the building of a street car line from Market Street to the beach. It was evident to me that this line was more or less of an experiment, but I didn't make any analysis of it. There were a good many things connected with the early history of the Company which make it very difficult, if not impossible, to work out a satisfactory result by the Wisconsin method. Records were available and were examined in detail by

Mr. Galloway. Since 1905 when Stone and Webster took the property over the records are in good shape.

I have treated bond discount as prepaid interest. I have omitted the grade raising items because the necessity for the grade raising grew out of the storm of 1900, which was a community calamity and the expense attached to placing Galveston at an elevation of safety was one that had to be borne by everybody alike, and the Galveston Electric Company was in the same position as a private citizen. It was not a thing which added anything to the
223 value of the property. If you were to reproduce this property
today, you would not have any item of grade raising to contend with. As an engineer I have studied the rise and fall of materials and labor as an economic proposition. It is a fact that prices are now descending. I have heard of at least one instance where labor has voluntarily accepted a decrease in wages. Materials for construction are coming down and have come down materially. They are not down to pre war levels, but have started down very materially and in my opinion all materials of construction will ultimately seek a much lower level than they are at present. Where they will eventually descend to I should'nt venture to guess. They might possibly go lower than the pre war basis. 1914 prices represented about an average of the preceding twenty years. I am inclined to believe that the values of 1914 would be a fair average value for rate making purposes to attach to such items of construction or installation as were installed during or prior to that
224 time. Such items of construction as have been constructed
since that time of course should be valued at the cost at the time of construction. But if no definite price is known the 1914 price levels would be a fair average price for it. In all of my estimates I used the average pre war prices which compare with the 1914 prices for arriving at the probable cost for such items of construction. My financial set-up is shown on the last page of the summary to the report. I took the total plant cost as per agreement at $1,720,000, from which I deducted, to arrive at the depreciable value, $142,000 for overheads. Engineering is left in the $1,720,000 as a depreciable item. I have deducted the unused track at $2,100—the unused land at $2,075—working cash $60,000—
225 materials and supplies $33,000—grade raising $136,281 or
a total of $375,456 leaving the total depreciable property including real estate at $1,344,544. I left in engineering because on certain items of construction on which engineering is charged, engineering will depreciate with the construction unless it is some general design that will be adhered to through the total life of the organization. If the plant is built piece-meal the engineering inherent with it will depreciate in the same manner that the tangible elements depreciate. I then deducted the accrued depreciation of $505,000, leaving a balance as the depreciated plant value of $838,648 to which I add back the overheads less that proportion of the overheads included in grade raising and working cash, materials and supplies, making a total of $215,921 or a grand total for property costs for rate basis of $1,054,569. Then I estimated a fair return of

5 per cent on that base, giving $84,366. Depreciation at 4 per cent on $1,286,158 is $51,428. I base the fair return on $1,-
226 054,569. I base the depreciation on $1,286,158 less real estate and right of way. The depreciation is on the new undepreciated value. If you base your depreciation on the other, the amount of the depreciation would not amortize the original investment in the period in which it would be supposed to. The actual maintenance as recorded on the books is $80,322 Taxes, less Federal Taxes $20,754, and I have extracted from the total taxes the amounts paid for Federal and Excess Profits Tax and Income Tax on the theory that this was a tax on incomes and that if it were turned back as an operating expense to be recovered, the Company in fact would not pay any tax, but the patrons would pay the Company's tax through operating expenses. Then an operating expense which is the total as recorded on the books less the $80,000 and a deficit of fair return of $2,466 makes the sum total of the gross earnings $548,477. On my set-up the Company failed to make a fair return by $2,466.

(Valuation report parts 1 & 2 bound together, admitted as defendants' exhibit No. 7. Statement of agreement between Messrs. Gillette and Elrod and financial set-up received in evidence and marked exhibit 8. Mr. Galloway's table received and marked exhibit 9.)

I find that the following dividends have been paid by the Company:

1905............	$10,500.00	1913...........	$101,000.00
1906............	21,000.00	1914...........	128,000.00
1907............	21,000.00	1915...........	135,000.00
1908............	21,000.00	1916...........	135,000.00
1909............	36,000.00	1917...........	101,201.00
1910............	51,000.00	1918...........	54,000.00
1911............	51,000.00	1919...........	67,500.00
1912............	51,000.00		

They are the total dividends without distinction as to preferred or common stock. The same table shows interest paid on the bonds and funded debt. No segregation of the street railway and
227 light and power departments was made.

Cross-examination:

I have computed the development cost of the Companies from the records from 1881, corresponding with Mr. Gillette's computation, showing a deficit over surplus compounded annually of $2,280,816, using the same factors that Mr. Gillette did. To arrive at a rate base, to this should be added the depreciated value of the plant which, in round numbers, is about $742,000, making a total of about $3,022,000. I increased the land values and to that extent varied somewhat from Mr. Gillette's factors, and got a somewhat larger total rate base, as Mr. Gillette used the original cost of the land. If I had not done this, my figure and his figure would be the same.

(Computation of development cost received in evidence. Marked exhibit No. 10.)

Turning to the depreciation of the boilers, I found that three 240 horse power boilers were depreciated 85 per cent and were in a 15 per cent condition. In addition there was one 240 horse power and one 500 horse power boiler which were depreciated 60 per cent. In other words, I gave the boilers a life of twenty years and depreciated them 5 per cent per annum. The twenty-year life was taken from some table, probably Floy's "Values of Public Utilities." I have an idea that this table was based on a composite of functional and natural lives. I believe the concensus of
228 opinion of engineers is that the average life of a tube boiler
in that use is twenty years. If the tables were based on functional depreciation only, and the boiler in question didn't show age, on my basis the figure would be much too high. If the boilers are really in a 15 per cent condition, they are not necessarily in bad shape. A boiler may run along for a great many years up to a point where insurance inspectors will pass it, and then they will come along and perhaps condemn it and that is the end of its life. On my computation these boilers have three more years of life. If they do not actually go out of existence in three years, my computation will have been wrong. They may be condemned any time.

The power house itself is well built but has some natural depreciation, particularly in the roof. I depreciated the whole building 36 per cent, or 2 per cent per annum, over the 18 years that it has been in use. Most of this was functional depreciation. Perhaps 10 per cent or may be not quite so much was natural.

The building so far as the brick and concrete is concerned will undoubtedly stand for a great many years. I gave it fifty years life, the maximum allowed for power plant buildings in the table I used. Mr. Gillette's book quotes a similar life as the highest for buildings of this character. A fifty year life for that building would be mostly functional. My percentage of depreciation took into consideration that the utility of the building so far as floor space was concerned has already been absorbed with the present equipment. I don't know what the plans of the Company are. It is possible that if they have a contract for outside power they could use this
229 plant as a stand-by plant until its equipment wears out. It
would be cheaper for the public to have a stand-by capacity that is cheap rather than one that is expensive. Even with all this in mind, however, I would have depreciated the building 36 per cent on functional grounds, as eighteen years of its life have passed and it is already outgrown. Of course the reciprocating engines as they wear out can be replaced by turbo-generators for stand-by purposes. The difference between the lives of different units in the tables compiled by different engineers is due to difference of opinion among the engineers. If a motor costs $700 and I found it had a 20 year life in the table I was using and was 10 years old, I would

value it at 50 per cent, or $350. If the market value of the motor was actually more than that, I would not change my estimate of depreciation because it is based on cost rather than present value. General construction materials such as were used in this plant have increased in price some 112 per cent since 1914. Present prices are approximately 2.1 times 1914 prices. It does no good to assume that you could sell a second hand system and sell its units at their present value less depreciation because that situation does not exist. That would not even be true if it were movable property. My answer to the question why I think it is fair to depreciate the property but to allow no offsets for its increase in value though depreciated is that it is a pretty hard matter to get away from the theory that a utility is allowed a fair return on its investment in the properties and no more. I think this is equitable. In the case of land the decisions which I have read indicate that the increase should be allowed. Such an increase I offset against the de-
230 preciation. When other things have increased in value,
however, the increases have not been considered but we have kept to the invested cost, and I think that it is fair and equitable for rate purposes. In valuing for taxation purposes we use a somewhat different method, as the statute requires that the market value be given. Present prices would have to be used.

I have depreciated some cedar poles 44 per cent. I did not know that they could be taken down and sold to the American Lead Pencil Company for more than they originally cost. If I had known it, however, I would still have depreciated them on the theoretical life basis. I repeat what Mr. Gillette said that we are not dealing with values, we are dealing with costs. I have simply presented the situation. It is a matter for the Court to decide whether if the depreciation is taken on the functional basis and not on the natural basis it should be offset by appreciation.

I have depreciated the new car barn, a concrete and brick structure in fine condition, 16 per cent on the basis of $30,000 or in round numbers about $5,000.

The building is well constructed of concrete and brick and the natural depreciation would be very small. It will last a great number of years.

Although there is no immediate prospect of street cars being eliminated, yet there has been a tendency that way and a change might take place in the next ten or twenty years that would render this building useless for its original purpose and it might not be so well adapted for any other. My valuation of $30,690 on this
building and certain other buildings on the lot was based
231 upon the record cost in 1915 and the depreciation that I
have figured, $4,910 may be a little large for the car barn itself as an entity as natural depreciation alone without more tangible basis of functional depreciation.

I applied to all the property this same method, that is taking lives from some authority, applying the age to the property in question and figuring out the percentage of life that remains on the estimated age on the straight line method. The sinking fund

formula used by Mr. Gillette and a great many engineers would have produced a very much lower accrued depreciation on the same data. I do not say that that is not a correct formula under certain circumstances, but I believe it is fairer to both the utility and the public to use the straight line formula, and a great many engineers and commissions have stuck to that theory. I regard the Wisconsin Commission as of very high mental capacity and integrity. It is one of the oldest commissions and very prolific in decisions. It has adopted the sinking fund method and that method in this case would have brought considerably less accrued depreciation. The largest difference between Mr. Gillette's depreciation and mine lies in the method used for arriving at depreciation. We were in very close accord as to the ages of the various component elements of the property and were fairly of the same opinion as to the standard of life in the properties, but we did not agree on the matter of the method used. Under commission regulation where the commission has supervision over the accounts and operations of the company I think the sinking fund method may be used. I do not think, however, it would be any better than the straight line
232 method. It would be better for the public in time, as after its application there would be a small depreciation annuity. Mr. Gillette has said that he used the straight line method in figuring the depreciation annuity and the Wisconsin method in determining accrued depreciation. On depreciation annuity he came out the same as I did except that I divided the deficit on up-keep cost. It doesn't make any difference how it is divided because it all has to come out of current operations in the last analysis. My estimate and Mr. Gillette's differ by about $115,000. I took all the property in the power plant and applied this functional life basis on the theory that all of those things would go out of existence with the power plant when it goes out of existence. I excepted switch boards, however, as they are manufactured in interchangeable units and capable of being moved. There might be some salvage value in the pipe and wiring, but the cost of salvaging it would probably offset it. I have offset salvage values on copper wire, trolleys, etc., but it is not much when you take off the cost of salvaging it. The same is true of rails and insulators. On the fifteen-ton crane I could not find the cost records so I used the cost of a practically similar crane bought at about the same date at Houston—$1,750. I depreciated it 34 per cent on a life of about fifty years, the same as the life I gave to the building. There is practically no wear and tear on the crane, but at the end of fifty years when the building is scrapped the crane will have to be. It might have some salvage value, but it would be very small.

233 In 1914 I appraised the gas plant and electric light and power plant at Houston. I used the invested cost method there but also prepared an inventory or valuation on the basis of reproduction at the request of the City over my protest. This change was at the suggestion of the then City Solicitor, now Judge Hutcheson, the present United States District Judge. I have found in this case no situation similar to the case of the smoke stack in the

Brush Electric case. In determining the 9½ per cent for up-keep cost I used the basis of the recorded book values, or rather the record cost of maintenance and the record cost of the property. For the year 1920 I took the actual maintenance from the books which I thought was a fair maintenance, but which Mr. Gillette thought was subnormal. The amount of depreciation allowance for 1920 I found by taking 9½ per cent and deducting the $80,000 actually spent. Mr. Gillette applied his percentage to $1,600,000 which was the total value including overheads and non-depreciables. I deducted those non-depreciables so that the difference came not in the percentages but in the basis to which the percentages were applied. The grade raising item of $136,000 in the development cost set-up was amortized over the fifteen years allocating 1/15 to each year's operating expenses. In order to avoid the effect of leaving in capital value the unamortized portion I determined when the investment was made and pushed it back so as to give practically a mid-period value. In determining whether the financial set-up for any given period is true I make the distinction between maintenance and depreciation. The only reason for this is the nature of the two things although both are operating expenses. When a re-
234 serve is set up to take care of them it does not particularly
change the operating expenses. Depreciation as a rule does not grow with annual up-keep and maintenance, and maintenance occurs currently and must be paid for currently out of operation.

(Agreement of counsel that all franchise ordinances pleaded by either party be considered in evidence.)

Redirect examination:

As to my view in regard to the continuation of the present high prices, I have not studied political economy especially, so I believe I am not as well qualified to discuss the situation as I would like to be. I believe, however, that my opinion as to what will happen in the future is about as good as anybody else's because the situation that existed subsequent to the Civil War in relation to national finances and the return to normal or to the plane it was on prior to that time is not, to my mind, exactly comparable with conditions that exist in this country or in the world at large today. A panic might precipitate prices, but I believe that nobody can predict with a reasonable degree of accuracy whether there will be a panic or not. I believe that the United States is progressing towards a period of depression which will have a very salient effect on the situation so far as lowering prices is concerned. There is not enough gold in the world to pay the debts owing the United States. European countries are not in a position to buy; for instance, cotton. About the only thing we can expect to export in large quantities is coal, because the other countries have to have it and therefore will devise some credit arrangement by which they can keep on buying
235 it, unless an embargo on it is placed in this country. As to
the prices of material of the general character involved in

this case, my opinion is that a new plateau of prices will be created. I cannot even guess at what exact level it will be, but I think that they will fall lower than the plateau assumed by Mr. Gillette. Some commodities may go lower than the pre war prices. I don't think anybody can predict accurately where they will go. Prices will decline rapidly. The efficiency of labor has increased. Labor is plentiful and lumber has gone off very markedly. In 1896 the index prices did drop, but in another panic they might rebound and go up again. The statistics of the 1907 panic shows that they went down and then right up again so that a panic I think deserves consideration only as a temporary matter in price levels over a long scale.

(It is stipulated between counsel to have the effect of evidence that commercial loans are currently made at the present time by various banking houses in Galveston on 60 days to 6 months commercial paper at the rate of 8 per cent.

It is also stipulated between counsel to have the force of evidence in this case that since 1905 which is the date of the reorganization, street railway properties of the Galveston Electric Company have been reasonably well managed.

It is also stipulated between counsel to have the force of evidence in this case that the Galveston Electric Company has a contract with the Galveston-Houston Electric Railway Company, the inter-urban operating between Galveston and Houston, under which contract the Galveston Electric Company has the right to demand additional power for use in operating its cars in Galveston up to a maximum demand in any twelve months of three hundred kilowatts.)

236 T. A. GALLOWAY, a Witness for the Defendant.

Direct examination:

I am an accountant, actively associated with the firm of Ernst & Ernst at its Houston office.

In preparing the table of the value on December 1904, I started with the value of $1,720,000 as of June 30, 1920, deducting from that the non-depreciables which gives the depreciable values and deducting from that from year to year backward the additions during each year to get the value of the depreciables on December 31, 1904, amounting to $761,910. The table gives in the first column of plant investment, depreciables only. The second column shows the additions as recorded by the records and the third column the annual depreciation, or accrued depreciation, giving the depreciated plant depreciables only from year to year in the 5th column.
237 To that then are added back the non-depreciables, cash, materials and supplies, overheads and real estate, leading up to the total plant value for the computation of allowable return. In the following columns are shown the allowable return as computed on the total plant value added to which is the net depreciation. Comparing this final result with the actual net earnings as shown by the records, we have in the next to last column the surplus, or deficit,

for each year, and in the last column the accumulated surplus, or deficit. I figured the return in this table at the rate of 8 per cent. The table shows a net surplus of $253,870 or an accumulated surplus of $379,888. Accumulated surplus is compounding the surplus or deficit for each year at 8 per cent interest. The first year there was a deficit of $34,225 or, with compounded interest, $35,594. That deficit then is used as the base for computing the interest for the next year to which is added the interest on the deficit next year at 4 per cent for a half year or an average rate spread over the year, giving an accumulated deficit for the year of $43,262 and so on down.

238 Cross-examination:

I prepared this table. In it the replacements actually made have not been offset against accrued depreciation. The renewals that have actually been made are included in the physical valuation of the property, in that the valuation of $1,720,000 is not the depreciated value but includes properties that have been depreciated and replaced. The renewals are not considered in making up this table. Although $275,044 was spent for replacement they have not been shown anywhere as an offset to accrued depreciation.

In the computation of the development cost of the property (Exhibit 9) I wish to make a correction by showing replacements actually made from replacement reserve as an offset against accrued depreciation. As corrected the development cost indicates a deficit of $212,452. I did not check this computation before presenting it here and so omitted by mistake the replacement charges. If I had time to check it I would probably have detected the error. Not being an engineer, I am not familiar with the Wisconsin method or any other method. I used the method which was outlined to me.

239 *Summary of Testimony Before J. C. Hutcheson, Jr., Judge of the United States District Court for the Southern District of Texas, January 21st,* 1921.

H. P. GILLETTE, Witness for Plaintiff.

Direct examination:

I am asked to state whether, in view of the changes which have occurred since the testimony before the Master in the prices of some commodities and in view of present conditions generally, I am of the same opinion respecting the probable plateau of prices in the future that I was at the time I testified before the Master in October, 1920. I would say that I am of the same opinion with regard to the plateau of prices. The conditions have not altered sufficiently to lead to any different conclusion.

When prices were at their peak in the first part of the year 1920, I testified before the Pennsylvania Public Service Commission that I believed prices would recede to a plateau at about 60% or 70% higher than pre war prices. There are two principal price determining factors: one is the quantity of money and the other is the rapidity

with which it turns over. The amount of money can be determined for practical purposes from the report of the Comptroller of Currency and the rapidity of turnover can be reasonably determined by taking the total bank clearings for the year and dividing them by the bank deposits. The bank deposits in 1919 were 20% above normal and in 1920 were 30% above normal, and that factor alone would bring prices down 30%. A rapid turnover would increase prices and correspondingly a decrease in the turnover would decrease prices. The price determining factor which is most immediately felt in prices is this money turnover; it moves the quickest every time. Since I made the appraisal of this Galveston
240 property there has been a decline of 30% in the average price of all commodities, but taking the United States as a whole, the decline in the average price of all metals has only been 17% and steel outweighs the others, so that it can be said that building materials have declined as a whole 20% since last June. As I said before, I see nothing in the present conditions which would lead me to change my testimony given before the Master to the effect that the plateau of prices will be 60% to 70% above the pre war base.

I have made, as of the present time, a new estimate of the cost of reproduction of the Galveston Railway properties, and I find that since I made the valuations testified to before the Master last June, there is a difference of only 1% in the cost of reproducing these properties; it is about 1% lower. Labor constitutes about 35% of the total in this appraisal and practically that has not changed. Steel rails dropped only 20%, but on the other hand freight upon them advanced one-third, and that will offset the drop, so that in the valuation of the properties no benefit comes from the drop in price. The freight rates increased one-third in September following our appraisal. Only one thing needs special comment and that is lumber. It is now only 10% above the prewar level. It is exactly 50% below the figures we used last June.

Cross-examination:

The index prices published by the United States Bureau of Labor Statistics are for the purpose of showing what are called average prices of commodities throughout the United States. They are, however, a little deceptive since they take the prices of steel and iron at Pittsburgh and that is not the average all over the United States. With regard to building materials, they take five cities, i. e., New York, Chicago, Denver, San Francisco and New Orleans. They don't take the average all over the United States; on
241 cotton they have two centers and on wheat two centers. Although they are spoken of as averages, they do, in fact, only show the general trend over the country. In making an appraisal, of course, the only safe plan is to take prices prevailing at the actual location of the property from actual quotations obtained locally. Lumber and building materials in August, 1920, showed an index number of 328, and in December, 1920, 266, or a decline of 62 points, which is not quite 20%. It would not be fair to judge

the price decline by lumber alone. The Bureau of Labor index number is based on about twenty building materials. Lumber has gone down more than other materials. Generally speaking, the local dealers will probably adjust their prices to the prices generally prevailing unless there are local conditions in the matter of supply and demand which justify different prices, but in the end I anticipate that the general conditions would be reflected in the local market.

The following financial statement of the railway department of the Galveston Electric Company was introduced in evidence:

Railway department.		12 months ending Dec. 31, 1919.		12 months ending Dec. 31, 1920.
Gross Revenue from Operation		$519,034.45		$581,418.83
Operating Expense less Maintenance	$294,218.82		362,411.61	
Maintenance	64,108.07		90,861.28	
		358,326.89		453,272.89
Balance		160,707.56		128,145.94
Taxes		37,927.04		35,475.30
*Net Earnings		122,780.52		92,670.64

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*Depreciation not included.

		12 months ending June 30, 1920.		6 months ending Dec. 31, 1920.
Gross Revenue from Operation		$548,477.00		$309,822.91
Operating Expense less Maintenance	314,073.00		200,724.50	
Maintenance	80,322.00		46,577.85	
		394,395.00		247,302.35
Balance		154,082.00		62,520.56
Taxes		37,008.00		17,737.65
*Net Earnings		$117,074.00		$44,782.91

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*Depreciation not included.

242 Houston, Texas, January 21, 1921.

Honorable J. C. Hutcheson,
Judge United States District Court,
Houston, Texas.

My Dear Judge Hutcheson:

I learned immediately after the hearing before you this morning, in the matter of Galveston Electric Company vs. Galveston, et al, No. 40 in Equity, that there is included, in the exhibit of financial operations of the Company put in evidence this morning, in the Operating Expenses for 12 months ending June 30th, 1920, the sum of $3,500, and in the Operating Expenses for 6 months ending December 31, 1920, $29,500, of expenses incurred by the Company in connection with the rate litigation.

Of course, these expenses, though properly chargeable to operation should be excluded in a determination of normal operation, and I am calling this matter to your attention to the end that, if you desire to get an accurate view of the normal condition for the period mentioned, you may exclude them in your calculations.

Very truly yours,
(Signed) WILLIAM E. TUCKER,
Attorney for Galveston Electric Co.

243 It is hereby agreed between Henry Exall Elrod representing the City of Galveston and John Cecil Black representing the Galveston Electric Company, for the purposes of the case now pending between said City and said Company that the undepreciated record cost of railway property of the Galveston Electric Company from 1881 to June 30th, 1920, inclusive, as reflected by the books and records of the said Company, exclusive of Franchise Value, Working Cash, Materials and Supplies, Going Concern Value (Development Cost) is $2,100,537.

But it is recognized that said $2,100,537 includes items of Grade Raising totaling $136,328, and of Bond Discount totaling $38,232, as to which each of the signatures hereto reserves the right to alter his treatment.

HENRY EXALL ELROD.
J. C. BLACK.

244 It is hereby agreed between Henry Exall Elrod representing the City of Galveston and Halbert P. Gillette representing the Galveston Electric Company, for the purposes of the case now pending between said City and said Company that the estimated undepreciated cost of reproduction of railway property of said Company on the historical basis, exclusive of franchise value, going concern value (development cost), bond discount, and brokerage fee, is One Million Seven Hundred and Twenty Thousand Dollars ($1,720,000) as of June 30, 1920. This estimate is made as nearly as possible on the basis of prices which were in effect at the time of construction of the component elements of the property, except for lands and right of way, which are estimated at their present value.

The above stated estimate of $1,720,000 includes a total of $202,000 of overhead charges to cover the following items: Engineering and Superintendence, Law Expenses, Interest during Construction, Injuries and Damages due to Construction Work, General Expense and Organization Costs, but exclusive of Bond Discount and Brokerage Fee.

The estimate includes $136,281 as cost of grade raising, $2,100 as cost of rails on the Fort Crockett loop line (which has been out or service), and $2,075 as estimated value of land in material yard at 40th St. and Ave P½,—as to each of which each of the signers hereto reserves the right to make such disposition as he may deem proper.

Included in the total estimate of $1,720,000 is power generation and transmission property totaling $186,000 allocated to railway use from the total of such property owned by the Company,—as to which each of the signers hereto also reserves the right to make such disposition as he may deem most appropriate.

HENRY EXALL ELROD.
H. P. GILLETTE.

245 PLAINTIFF'S EXHIBIT NO. 1, WITNESS GILLETTE.

This exhibit is a reprint of articles written by Mr. Gillette on the subject of index prices and price levels. The substance thereof is included in the statement of evidence given by Mr. Gillette.

(Here follows reproduction of Plaintiff's Exhibit No. 2, witness Gillette, marked page 246.)

Plaintiff's Exhibit No. 2, Witness Gillette.

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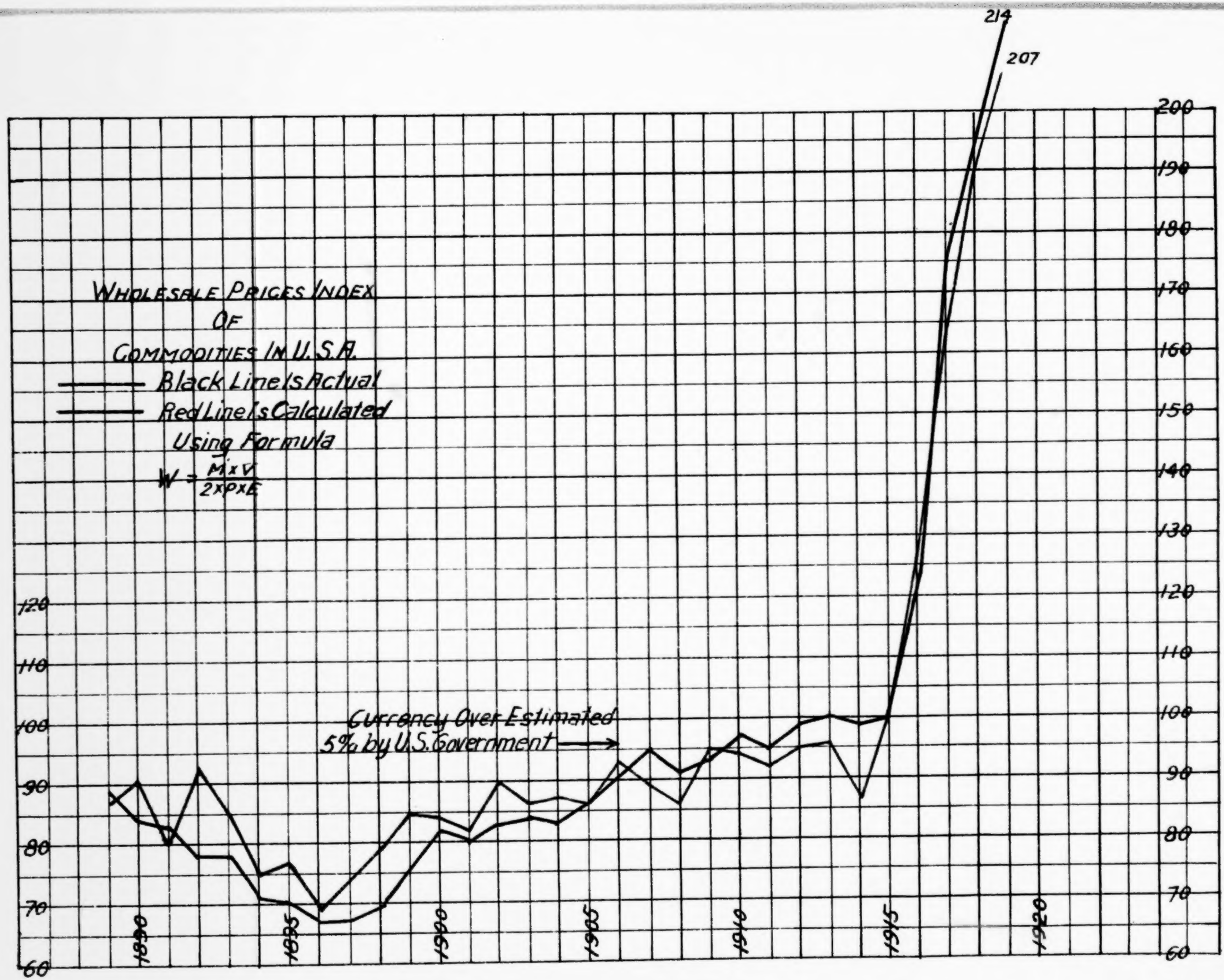
Plaintiff's Exhibit No. 2, Witness Gillette.



247 Plaintiff's Exhibit No. 3, Witness Gillette.

This exhibit is a certificate of Geo. F. Burgess, Clerk County Court, in and for Galveston County, Texas, dated October 11, 1920, giving a true and correct abstract from the Deeds of Trust affecting the title to real estate situated in the City of Galveston, Texas, of record in his office between April 1, 1920 and October 8th, 1920.

In said certificate there were listed 200 mortgages in which the rates of interest on the loans secured thereby was shown of record. Of said loans two were at the rate of 10% per annum, 181 were at the rate of 8% per annum, 7 were at the rate of 7% per annum and 10 were at the rate of 6% per annum.

248 Plaintiff's Exhibit No. 4, Witness Gillette.

This Exhibit is a graph entitled, "U. S. Corporation Bond Yields," and shows the following ranges in such yields for the years indicated:

1860	6.5 to 7.5	Civil War.
1861	6.5 to 7.1	
1862	5.8 to 7	
1863	5.4 to 6	
1864	5.3 to 6.1	
1865	5.9 to 7	
1866	6.4 to 7.2	
1867	6.5 to 7.1	
1868	6.4 to 7	
1869	6.5 to 7.2	
1870	6.5 to 7.8	Franco-Prussian War.
1871	6.8 to 7.6	
1872	6.8 to 7.1	
1873	7.2 to 8.1	
1874	7 to 7.6	
1875	6.7 to 7	
1876	6.4 to 6.7	
1877	6.2 to 6.7	
1878	5.9 to 6.2	
1879	5.5 to 5.9	
1880	4.9 to 5.5	
1881	4.7 to 5	
1882	4.8 to 4.9	
1883	4.8 to 5	
1884	4.7 to 5	
1885	4.5 to 4.8	
1886	4.3 to 4.5	
1887	4.4 to 4.7	
1888	4.3 to 4.5	
1889	4 to 4.3	
1890	4.1 to 4.5	
1891	4.5 to 5.1	

1892	4.7 to 4.8	
1893	4.6 to 5.2	
1894	4.7 to 4.9	
1895	4.4 to 4.8	
1896	4.5 to 5	
1897	4.3 to 4.6	
1898	4 to 4.5	
1899	3.8 to 4	Spanish-American War.
1900	3.7 to 3.9	Boer War.
1901	3.7	
1902	3.8	
1903	3.8 to 4	
1904	3.9 to 4.2	
1905	3.9	Russo-Japanese War.
1906	4	
1907	4.1 to 4.7	
1908	4.2 to 4.6	
1909	4.2	
1910	4.3	
1911	4.3	
1912	4.3 to 4.4	
1913	4.4 to 4.7	World War
1914	4.6 to 4.9	
1915	4.7 to 5.1	
1916	4.7 to 4.8	
1917	4.7 to 5.5	
1918	5.2 to 5.8	

The graph also bore the following legend:

"This graph is drawn from figures furnished by the Babson Statistical Organization. The Bonds included were necessarily changed from time to time but the net result is a pretty faithful reflection of corporation bond prices in the United States. It is necessary to show the yield rather than average of bond prices because prices are affected by the maturity of the various bonds."

249 ## PLAINTIFF'S EXHIBIT NO. 5, WITNESS GILLETTE.

Table Showing the Amount by which Galveston Electric Company Failed to Earn Proper Depreciation Allowance and a Fair Return Twelve Months Ending June 30, 1920.

Report page.			
72	Gross Earnings		$548,477
72	Operating Expenses and Taxes (including $8,570 paid as income taxes, and excluding all maintenance charges)		351,080
	Balance		$197,397
72	Actual Amount spend for Maintenance	$80,322 (A)	
96½	Amount which should have spent for Normal Maintenance 6.46% of $1,653,728, or in round figures	107,000	
	Amount by which Normal Maintenance was unprovided for in Actual Maintenance	$26,678 (B)	
97	Allowance for Depreciation and Renewals at the rate of 3.17% per annum on $1,653,728, in round figures	52,000 (C)	
	Total Items (A), (B) and (C)		159,000
	Amount remaining with which to pay Return		$38,397

250 ## PLAINTIFF'S EXHIBIT NO. 6, WITNESS GILLETTE.

This exhibit is a detailed report and appraisal of the business and property of the street railway department of the plaintiff.

The agreements between the engineers representing the plaintiff and defendants as to the historical reproduction cost and the record cost of the street railway properties of the plaintiff has in large part made the details contained in this exhibit unimportant to the present issues.

The following excerpts from the exhibit are the only parts thereof bearing upon the issues raised by the appeal. That part of the excerpts dealing with "Estimated Original cost of property" and the "Estimated Cost of reproduction of property new as of June 30, 1920," are typical of the methods used therein.

251

Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

TABLE I.

General Summary of Property Costs June 30, 1920.

	Record cost of property.	Estimated original cost of property.	Estimated cost of reproduction of property.	Estimated cost of reproduction of property less depreciation.
Plant	$2,100,537	$1,668,686	$3,372,094	$2,536,858
Supplies	43,385	33,000	40,000	40,000
Working Cash	25,000	60,000	60,000	60,000
Total	$2,168,922	$1,761,686	$3,472,094	$2,636,858
Depreciation	390,000	390,000	835,236	....
Balance	$1,778,922	$1,371,686	$2,636,858	....
Development Cost	1,006,896	1,414,132	....	....
Total	$2,785,818	$2,785,818	....	....

TABLE II.

Business of Year Ending June 30, 1920.

Gross Earnings—Railway Department		$548,477
Operating Expenses	$394,395	
Taxes (80% of Total Taxes of the company)	37,008	
Replacements charged through Improvement Reserve	19,545	
Total Expenses, Taxes & Replacements	$450,948	450,948
Apparent Net Earnings		97,529
Upkeep unprovided for		59,133
True Net Earnings		$38,396

Page 1, Plaintiff's Exhibit No. 6, Witness Gillette.

252 Galveston Electric Company, Railway Department

Report of Halbert P. Gillette, 1920.

TABLE III.

Net Earnings of Year Ending June 30, 1920, as Percentages of Property Costs.

		Apparent net earnings, $97,529.	True net earnings, $38,396.
Record Cost of Property	$2,168,922	4.50%	1.77%
Investment including Development Cost	2,785,818	3.50%	1.38%
Estimated Original Cost	1,761,686	5.53%	2.18%
Estimated Cost of Reproduction	3,472,094	2.81%	1.11%
Estimated Cost of Reproduction less Depreciation	2,636,858	3.70%	1.46%

Page 2, Plaintiff's Exhibit No. 6, Witness Gillette.

253 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Abstract of Physical Property.

The Railway Property of the Galveston Electric Company consists chiefly of the following items:

36 Equivalent single track miles of street railway.
72 Passenger street cars.

5 Service street cars.
#*4 Blocks of city land.
*1,600 Wood poles with fittings.
#*3 Miles of 13,000 vold aerial cable.
*30 Tons of weatherproof copper feeder cable.
#1 Power Plant building.
2 Car barns.
#1500 Boiler horse power condensing steam plant.
2 325 k. w. engine generators—d. c.
#1 125 k. w. engine generator—a. c.
#1 200 k. w. engine generator—a. c.
#1 500 k. w. engine generator—a. c.
2 300 k. w. motor generators—a. c. to d. c.
*1,000 K. W. substation—15,000 to 2,300 v.
1,200 K. W. Substation 33,000 to 15,000 v.
1 Repair shop: wood and metal working machine tools.
1 Office: furniture and equipment.

Page 15, Plaintiff's Exhibit No. 6, Witness Gillette.

254 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Business of Twelve Months Ending June 30, 1920 (Five-cent Fare in Effect Throughout Entire Period).

Earnings.

Passenger Revenue		$524,360
Other Railway Revenue		24,117
Gross Earnings, Railway Department		$548,477

Expenses, Taxes, and Replacements.

Maintenance:		
Way & Structures	$41,652.	
Equipment	38,670.	
Total Maintenance		$80,322
Operation:		
Traffic	2,622	
Power	37,053	
Operation Cars	208,172	
General	66,225	
Total Operation		314,072
Total Expense		$394,394

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*Approximate.
#Used jointly with Light and Power Department.

Replacements & Abandonments:

Total expended for replacements and property charged off as obsolete all as charged through Improvement Reserve		19,545

Taxes:

Income Tax	$10,713	
Other Taxes	35,547	
Total Taxes	$46,260	
Railway Portion estimated as 80% of Total Taxes		37,008
Total Expenses, Taxes, Replacements and abanments		$450,947
Apparent Net Earnings		$97,530

Page 72, Plaintiff's Exhibit No. 6, Witness Gillette.

255 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Calculation of Up-keep Unprovided For.

From Table XXXIII.

19½ Year Average Maintenance & Repairs 3.23% of Plant Costs. Plant Costs in the table are almost wholly at pre-war prices; and since labor and material prices are now about double those of the pre-war period, maintenance and repairs of existing property will cost twice as much as in the past, and will total 6.46% of Plant Cost as of June 30, 1920. Capital required for reconstruction or Depreciation in excess of the original cost of the property involved must be provided as additions to plant, so that the percentages of plant cost will not change.

Maintenance & Repairs	6.46%	
Reconstruction, etc.	1.63%	
Accrued Depreciation	1.54%	
Total Up-keep Cost of Plant of June 30, 1920	9.63%	
9.63% of $1,653,728 (Depreciable Plant Cost June 30, 1920) is about		$159,000

From Table XI-A—12 Months Ending June 30, 1920.

Total Maintenance	$80,322	
Replacements of Abandonments............	19,545	
Total Up-keep paid in 12 mos. ending June 30, 1920		99,867
Upkeep unprovided for in 12 mos. ending June 30, 1920		$59,133

Page 96½, Plaintiff's Exhibit No. 6, Witness Gillette.

Report of Halbert P. Gillette, 1920.

TABLE.

Details of Repairs, Replacements, Renewals, Etc., Made to and Depreciation Existing in Property.

	Plant cost at mid-year.	Maintenance and repair.	Reconstruction, replacements, and abandonments.	Accrued depreciation in property.*	Total repairs, renewals, and depreciation, amount.	% of plant.
1901..........	$956,665	$11,002	$25,880	$14,700	$51,582	5.4
1902..........	958,010	21,452	40,763	14,700	76,935	8.0
1903..........	959,266	56,663	13,200	14,700	84,563	8.8
1904..........	959,322	42,069	10,550	14,700	67,319	7.0
1905..........	963,997	40,042	37,357	14,900	92,259	9.6
1906..........	985,561	35,137	27,384	15,200	77,721	7.9
1907..........	1,005,934	40,523	17,002	15,400	72,925	7.3
1908..........	1,052,364	37,867	11,286	16,200	65,353	6.2
1909..........	1,115,184	42,841	20,011	17,700	80,552	7.2
1910..........	1,178,680	44,449	5,360	18,100	67,909	5.7
1911..........	1,255,978	42,334	5,689	19,300	67,323	5.4
1912..........	1,349,880	48,851	55,444	20,700	124,995	9.3

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*Determined yearly by prorating the existing accrued depreciation over a period of nineteen and a half years by taking 1.54% of mid-year property values each year. The figure 1.54% is obtained by dividing the existing accrued depreciation in the property of $290,000 by $25,335,273, the sum of mid-year property value from Jan. 1, 1901-June 30, 1920.

Details of Repairs, Replacements, Renewals, Etc.—Continued.

	Plant cost at mid-year.	Maintenance and repair.	Reconstruction, replacements, and abandonments.	Accrued depreciation in property.*	Total repairs, renewals, and depreciation, amount.	% of plant.
1913..........	1,443,825	49,641	12,917	22,200	84,758	5.9
1914..........	1,501,002	47,651	16,908	23,200	87,759	5.8
1915..........	1,544,832	41,935	13,119	23,700	78,754	5.1
1916..........	1,574,707	31,319	6,957	24,200	62,496	4.0
1917..........	1,605,463	33,983	71,860	24,500	130,343	8.2
1918..........	1,631,504	40,884	5,839	25,200	71,923	4.4
1919..........	1,639,371	64,108	2,340	25,300	91,740	5.5
6 mos. 1920....	1,653,728	44,286	16,946	25,400	86,632	5.2
Total....	$25,335,273	$816,937	$416,832	$390,000	$1,623,769	
Av., 19½ Yr....	$1,300,000	$42,000	$21,300	$20,000	$83,200	
% Av. prop. Value...............		3.23	1.63	1.54	6.4	

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*Determined yearly by prorating the existing accrued depreciation over a period of nineteen and a half years by taking 1.54% of mid-year property values each year. The figure 1.54% is obtained by dividing the existing accrued depreciation in the property of $390,000 by $25,335,273, the sum of mid-year property value from Jan. 1, 1901-June 30, 1920.

Page 97, Plaintiff's Exhibit No. 6, Witness Gillette.

Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

TABLE.

Make-up of Repairs, Renewals, and Depreciation for Use in Table.

Maintenance & Repairs are from Tables & Reconstruction etc. are from Table.

Year.	Maintenance and repairs.	Reconstruction, replacements, and abandonments.	Total.
1881	$22,140	No Record.	$22,140
1882	14,544	No Record.	14,544
1883	10,086	No Record.	10,086
1884	17,652	No Record.	17,652
1885	14,167	No Record.	14,167
1886	21,158	No Record.	21,158
1887	11,290	No Record.	11,290
1888	10,846	No Record.	10,846
1889	5,801	No Record.	5,801
1890	4,941	No Record.	4,941
1891	7,960	No Record.	7,960
1892	No Record.	No Record.	....
1893	17,046	No Record.	17,046
1894	20,185	No Record.	20,185
1895	27,106	No Record.	27,106
1896 & '97	No Record.	No Record.	....
1898	70,705	No Record.	70,705
1899	83,152	No Record.	83,152
1900	33,660	114	33,774
1901	11,002	25,880	36,882
1902	21,452	40,783	62,235
1903	56,663	13,200	69,863
1904	42,069	10,550	52,619
1905	40,042	37,357	77,399
1906	35,137	27,384	62,521
1907	40,523	17,002	57,525
1908	37,867	11,286	49,153
1909	42,841	20,011	62,852
1910	44,449	5,360	49,809
1911	42,334	5,689	48,023
1912	48,851	55,444	104,295
1913	49,641	12,917	62,558
1914	47,651	16,908	64,559
1915	41,935	13,119	55,054
1916	31,319	6,957	38,276
1917	33,983	71,860	105,843
1918	40,884	5,839	46,723
1919	64,108	2,340	66,448
1920—6 mos	44,286	16,946	61,232

Page 103, Plaintiff's Exhibit No. 6, Witness Gillette.

258 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Development Cost.

The calculation of development cost submitted herewith is made by the "Deficit" or "Wisconsin" method, for explanation of which reference may be had to "Mechanical and Electrical Cost Data" by Gillette and Dana, pages 49 and 50. A lengthy and detailed account of the method may be found in "Engineering and Contracting," June 26, 1912. An 8% fair return rate is assumed for the entire period of operation.

The form of calculation here used differs from that described in the last named article, but produces identical results.

The calculation is made for the forty year period from 1881 to date; but in the form used, there is an independent calculation for each year, so that the development cost for any given period may be selected from the table and shown independently. This is done for the years 1901 to 1920, inclusive, and appears following the main table.

A third statement is entered showing the result for the forty years' period after the elimination of Federal income taxes from the total of operating expenses and taxes.

A fourth calculation gives development cost from Jan. 1, 1905 to June 30, 1920—the period of present manag-ment except for the first four months of 1905.

Development Cost applicable to the Estimated Original Cost of Property must provide for the difference between Estimated Cost and Record Cost. If Estimated Cost is the lower of these it may indicate either an under-estimate, or a record cost which is too high by the cost of property abandoned, but never written off property account. In either of these cases, Development Cost, as first calculated, must be increased by the amount of the error. This is obvious in the case of the supposed under-estimate; while in the case of the failure to write off property, operating expenses are too low by the amount of such failures.

Pages 104 & 105, Plaintiff's Exhibit No. 6, Witness Gillette.

CHART

TOO

LARGE

FOR

FILMING

259 Galveston Electric Company, Railway Department.

Development Cost.

Summary Comparison.

Development Cost at 8%—1881-1920 (For addition to Record Cost of Property)	$1,006,896
Development Cost at 8%—1901-1920 (For addition to Record Cost of Property)	1,710,300
Development Cost at 8%—1881-1920 (After elimination of income taxes for addition to Record Cost of Property)	973,960
Development Cost at 8%—1881-1920 (For addition to Estimated Cost of Property)	1,414,132
Development Cost at 8%—1905-1920 (For addition to Record Cost of Property)	575,300

Page 106, Plaintiff's Exhibit No. 6, Witness Gillette.

260 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

TABLE.

Development Cost.

January 1, 1901, to June 30, 1920.

Initial Data and Calculations from Table Preceding.

Property Cost Dec. 31, 1919	$2,141,645
Property Additions 1901 to 1919 incl.	850,904
Property Cost Dec. 31, 1900	$1,280,741
Compound Interest Factor	4.31
Fair Return on 1900 Property	$5,520,000
Additions & Expenses compounded 1901 to 1919 incl.	10,651,800
Total paid out (Comp.)	$16,171,800
Gross Earnings Compounded 1901 to 1919 incl.	12,438,600
	3,733,200
Property Cost Dec. 31, 1919	2,141,600
Development Cost 1901 to 1919 incl.	$1,591,600
Additions for 6 months, 1920	118,700
Development Cost 1901 to July 1920 incl.	$1,710,300

Page 108, Plaintiff's Exhibit No. 6, Witness Gillette.

(Here follows page 107 of Plaintiff's Exhibit No. 6, witness Gillette, marked page 261.)

262 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Development Cost Calculated on Total Expenses, from Which Federal Income Taxes are Excluded.

Calculation of Deductions.

Year.	Federal taxes.	Compounding factor to Dec. 31, 1919.	Federal taxes plus interest.
1911	$264	1.85	$490
1912	693	1.71	1,180
1913	1,287	1.59	2,050
1914	1,841	1.47	2,710
1915	1,797	1.36	2,440
1916	1,434	1.26	1,810
1917	2,912	1.17	3,410
1918	898	1.08	970
1919	11,410	1.00	11,410

Total Deductions to Dec. 31, 1919	$26,470
Addition for 6 months, 1920	6,470
Total Deductions to June 30, 1920	$32,940

If taxes are not paid as operating expenses, the net earnings are higher and the development cost accordingly less.

Development Cost with taxes	$1,006,900
Deductions for Development Cost due to taxes	32,940
Development Cost without taxes	$973,960

Page 109, Plaintiff's Exhibit No. 6, Witness Gillette.

MAKE UP

	1901	1902	1903	19
Gross Earnings Galv.City Ry.Co.	$123,838	$177,476	$217,782	$25
Railway Earnings Galveston Elec.Co.	--	--	--	
Gross Earnings for year 1905				
Expenses & Taxes Galv.City Ry.Co.	$ 92,864	$125,273	$182,054	$17
Railway Expenses Galveston Elec.Co.	--	--	--	
Taxes-Galv.Elec. Co.(apportioned as 80% of total taxes)	--	--	--	
Reconstruction-Galv. City Ry.Co.(apportioned in Table)	25,880	40,783	13,200	1
Replacements & Abandonments-Galv.Elec. Co.(from Table)	--	--	--	
Total Operating Expenses,Taxes & Maintenance-	$118,744	$166,056	$195,354	$1

Galveston Electric Company
Railway Department

Report of
Halbert P. Gillette
1920

Table

MAKE UP OF ANNUAL EARNINGS OPERATING EXPENSES AND TAXES FOR USE IN DEVELOPMENT COST CALCULATION - Table

02	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
,476	$217,782	$250,322	$ 75,626	$ - -	$ - -	$ - -	$ - -	$ - -					
--	--	--	171,336	275,359	314,496	290,505	303,590	302,360	$369,179	$410,549	$498,072	$510,694	$486,52
			$246,964										
,273	$182,054	$176,036	$ 63,926	--	--	--	---	--					
--	--	--	106,030	167,301	184,719	183,312	158,536	197,121	204,178	212,112	242,169	33,607	227,945
--	--	--	4,452	7,153	9,569	10,801	13,776	12,326	16,782	16,274	20,533	23,816	23,585
,783	13,200	10,550	3,142	--	--	--	--	--					
--	--	--	34,215	27,384	17,002	11,286	20,011	5,360	5,689	55,444	12,917	16,908	13,11
,056	$195,354	$186,586	$211,765	$201,838	$211,290	$205,399	$222,323	$214,807	$226,649	$263,830	$275,639	$274,331	$264,649

, Witness Gillette.

Galveston Electric Company
Railway Department

Report of
Halbert P. Gillette
1920

Table

G EXPENSES AND TAXES FOR USE IN DEVELOPMENT COST CALCULATION - Table

1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	6 mos. 1920
- -	$ - -	$ - -	$ - -										
14,496	290,505	303,590	302,360	$369,179	$410,549	$498,072	$510,694	$486,523	$421,841	$374,296	$428,997	$519,034	$271,596
--	--	---	--										
4,719	183,312	158,536	197,121	204,178	212,112	242,169	33,607	227,945	211,090	220,478	286,717	358,327	205,971
9,569	10,801	13,776	12,326	16,782	16,274	20,533	23,816	23,565	24,937	28,006	24,952	37,927	18,044
--	--	--	--										
7,002	11,286	20,011	5,360	5,689	55,444	12,917	16,908	13,119	6,957	71,860	5,639	2,340	16,946
1,290	$205,399	$222,323	$214,807	$226,649	$263,830	$275,639	$274,331	$264,649	$242,984	$320,344	$317,508	$398,594	$240,961

263 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

TABLE.

Development Cost.

January 1, 1905, to June 30, 1920.

Initial Data and Calculations from Table Preceding.

Property Cost Dec. 31, 1919	$2,141,645
Property Additions 1905 to 1919 incl.	835,185
Property Cost Dec. 31, 1904	$1,306,460
Compound Interest Factor	3.17
Fair Return on 1904 Property	$4,141,500
Additions and Expenses compounded 1905 to 1919 incl.	8,246,400
Total paid out (Comp.)	$12,387,900
Gross Earnings (Comp.) 1905 to 1919 incl.	9,746,000
	$2,641,900
Additions for 6 Months 1920	102,300
	$2,744,200
Property Cost July 1, 1920	2,168,900
Development Cost 1905 to July 1920 incl.	$575,300

Page 109½, Plaintiff's Exhibit No. 6, Witness Gillette.

(Here follows page 110 of Plaintiff's Exhibit No. 6, witness Gillette, marked page 264.)

265 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Estimated Original Cost of Property Existing June 30, 1920.

The inventory for this estimate was taken by my assistants in June, July and August, 1920. It was made with great thoroughness and is, I believe, as complete in all respects as the requirements of the case warrant.

The estimate is intended to show what the property might reasonably have cost the Company under conditions obtaining at the time of its installation, consideration being given to its piecemeal construction, and to varying prices in existance in the different construction periods. Actual costs are accordingly used wherever available, and of reasonable amount. In the estimates, the unit costs of the older items of Buildings, Power Plant Equipment and some others are approximate averages for the period 1900 to 1910. One inconsistency is to be noted as resulting from this treatment. The Main Building estimated at these prices appears at much less than what must have been its actual cost at the time of its construction prior to 1881.

Rapidly depreciating items, such as trolley wire ans spans, are given at prices as of 1913 to 1915. Grading, Ballast, Tie, Rail and Special Work prices are approximate averages for the period 1905 to 1915. Paving Culverts and Cars are estimated largely at actual costs as shown by bills and vouchers. Lands are shown at their actual costs.

The unit costs include no overhead charges. Superintendents above that of foreman is provided for in Account No. 1, Engineering and Superintendence. The prices are believed to be such as might reasonably have been paid to a contractor for the various installations; it being considered that contracts afford the most economical method of construction.

The circumstances of the estimate are such as to reduce the necessity of an allowance for contingencies, and for the greater part they are omitted. At a few points, however, where there is more than ordinary uncertainty, and where the possibility of omissions is greatest, a small percentage of contingencies is introduced in the detail.

The joint use of power plant and other items by both the Railway and Light & Power Departments requires an apportionment of such items to the two departments. This is shown in the details of each plant account, and is fully explained in the discussion and calculations entitled "Apportionment of Jointly Used Property."

Page 114, Plaintiff's Exhibit No. 6, Witness Gillette.

266 Estimated Cost of Property is an estimate of what the accounting records should show if they had been kept cor-

rectly and completely from the beginning of construction to the present time, and if the various costs had been neither excessively high nor excessively low.

Page 115, Plaintiff's Exhibit No. 6, Witness Gillette.

267 Galveston Electric Company, Railway Department.

Report of H. P. Gillette, 1920.

Estimated Original Cost of Property Existing June 30, 1920.

General Summary.

Plant account.	Estimated original cost.
1. Engineering & Superintendence	$59,879
2. Right of Way	1,600
3. Other Land	13,072
4. Grading	176,810
5. Ballast	47,475
6. Ties	69,765
7. Rails, etc.	182,307
8. Special Work	85,187
9. Underground Construction	......
10. Paving	167,552
11. Track Laying, etc.	98,343
12. Roadway Tools	2,000
13. Tunnels	......
14. Elevated Structure	......
15. Bridges, etc.	31,115
16. Crossings, etc.	......
17. Interlocking, etc.	......
18. Telephone & Telegraph Lines	......
19. Poles & Fixtures	20,366
20. Underground Conduit	......
21. Transmission	7,525
22. Distribution System	45,833
23. Dams, Canals, etc.	......
24. & 25. Power Plant & Sub-Station Buildings	34,427
26, 27 & 28. Other Bldgs.	54,537
29. Docks & Wharves	......
30 & 31. Power Plant & Sub-Station Equipment	114,788 (*c*)
32. Shop Equipment	10,518
33. Park Property, etc.	......
34. Cost of Road Purchased	......
35, 36, 37 & 38. Cars & Car Equipment	231,000 (*d*)
39. Miscellaneous Equipment	4,165
Total	$1,458,268

Page 116, Plaintiff's Exhibit No. 6, Witness Gillette.

268 Galveston Electric Company, Railway Department.

Estimated Original Cost of Property Existing June 30, 1920.

General Summary.

Plant account.	Estimated original cost.
40. Law Expense	$7,029
41. Interest	44,179
42. Injuries, etc.	11,492
43. Taxes	7,363
44. Miscellaneous	73,281
Undistributed Items	.....
45. Brokerage Fee	67,078
47. Materials & Supplies	33,000
48. Working Cash	60,000
Total	$1,761,686
Depreciation	390,000
Balance	1,371,686
49. Development Cost	1,414,132
Grand Total	$2,785,818

(*c*) Note off Page 3
(*d*) " " "

Page 117, Plaintiff's Exhibit No. 6, Witness Gillette.

269 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Estimated Original Cost of Property Existing June 30, 1920.

Plant Acct. No. 4—Grading.

Grade raising:

The various raises in grade of street and property levels in the City of Galveston extended from 1904 to 1912, and involved large expenses to the Company for the maintenance of its tracks and traffic.

Actual cost as per accounting records	$151,423	
Estimated Light and Power Portion 10%	15,142	
Estimated Railway Portion of Grade Raising		$136,281

Track trench:

All track was originally laid before streets were paved and the quantities here given are for a simple trench in soft material. The unit cost of 70 cents per cu. yd. is that actually incurred on a large amount of work. Excavation is assumed to be 6 inches below ties where track is shell ballasted, and to bottom of ties where track is laid in sand.

Excavation 56,500 cu. yd. at $0.50	$28,250	
Hauling 50,168 cu. yd. at 0.20	10,033	
Back Filling 6,332 cu. yd. at 0.05	316	
Total	$38,599	
Contingencies 5%	1,930	
Total Track Trench	$40,529	40,529
Account Total	......	$176,810

Page 122, Plaintiff's Exhibit No. 6, Witness Gillette.

270 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Estimated Original Cost of Property Existing June 30, 1920.

Plant Acct. No. 6—Ties.

Cypress Ties:			
6 inch x 8 inch x 8 ft.........	22,978 each	$.65	$14,936
6 inch x 8 inch x 7 ft.........	13,695 each	.50	6,847
(Price on 6″ x 8″ x 7′ ties as of date of installation 1906 and earlier.)			
Oak Ties:			
6 inch x 8 inch x 8 ft.........	11,969 each	.65	7,780
Pine Ties Untreated:			
6 inch x 8 inch x 8 ft.........	22,968 each	.50	11,484
Pine Ties Treated:			
6 inch x 8 inch x 8 ft.........	24,740 each	.80	19,792
Total Wood Ties......	96,350		$60,839

Steel Ties:

(International Twin).........	658 each	6.26	4,119
Total Ties f. o. b. Galveston..................			$64,958
Hauling & Handling.........	96,350 ties	.05	4,817
Account Total.............................			$69,865

Page 124, Plaintiff's Exhibit No. 6, Witness Gillette.

271 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Estimated Original Cost of Property Existing June 30, 1920.

Plant Acct. No. 7—Rails, Rail Fastenings, & Joints.

Prices of Rails, Joints and Fastenings are in conformity with average pre-war prices from records of the Galveston Electric and Houston Electric Companies, in so far as obtainable.

Running Rail:

Girder:

127-lb. Sec. 397 Lorain Steel Co. 49.10 long tons.		
108-lb. Sec. 398 " " " 10.70 " "		
Total long Tons.........59.80 at 44.60........		$2,667

High Tee:

80-lb. Sec. 335 Lorain Steel Co. 371.0 long tons at $42.00.	15,582
60-lb. Sec. 263 " " " 329.2 " tons at $36.00.	11,851

Low Tee:

80 lb.-A. S. C. E. 663.50 tons at $40.00..............	26,540
70 lb.-A. S. C. E. 277.40 " at 35.00..............	9,709
60 lb.-A. S. C. E. 2,114.10 " at 32.00..............	67,651
52 lb.-Relay 21.00 " at 15.00..............	315
Total Running Rail	$134,315

Guard Rail:

80 lb.-Sec. 335 L. S. Co. 12.4 tons at $42.00............	521
80 lb.-A. S. C. E. 10.2 " at 40.00............	408
70 lb.-A. S. C. E. 4.8 " at 35.00............	168
60 lb.-Sec 263 L. S. Co. 5.51 " at 36.00............	198
60 lb.-A. S. C. E. 47.9 " at 32.00............	1,533
52 lb. Relay 1.8 " at 15.00............	27
Total Guard Rail	$2,855

Rolled Guard:

47 lb. Sec. D.-L. S. Co.	5.8	"	at 32.00............	186
42 lb. " 235 G.	5.0	"	at 32.00............	160
60 lb. Home Made	6.3	"	at 32.00............	202
Total Rolled Guard				$548
Total Rail F. O. B. Galveston				$137,718

Page 125, Plaintiff's Exhibit No. 6, Witness Gillette.

272 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Estimated Original Cost of Property Existing June 30, 1920.

Plant Acct. No. 7—Rails, Rail Fastenings, & Joints.

Rail Fastenings & Joints:

24" 4 Hole continuous joints for 52 lb. 60-lb. 4¼ inch. & 70 lb. 4½ inch. Rail complete with Bolts................	9,273	at	$1.50	$13,910
26" 6 Hole continuous joints for 60 lb. 6 inch 80-lb. 7 inch 108-lb. 7 inch, & 127 lb.—7 inch Rail, complete with Bolts..	2,508	at	$3.00	7,524
28" 6 Hole Bonzano joints for 80 lb. A. S. C. E. Rail complete with Bolts....	2,042	at	$3.25	6,637
Compromise Joints complete with Bolts..	120	at	6.00	720
Welded Joints	189	at	10.00	1,890
Verona Nut Locks: 66,430...........		at	.01	664
Fillers: 8,700 lbs....................		at	.02	174
Rail Braces: 3,845....................		at	.40	1,538
Tie Rods 7/8 inch round with nuts....	120	at	.75	90
Tie Bars 1/2 inch—2 inch—5 ft. 7 inch..	1,020	at	.50	510
Steel Clips	2,860	at	.25	715
Anchor Bolts 5/1 inch—9 inch.......	6,750	at	.05	337
Spikes 5 1/2 inch—9/16 inch—1,060 kegs		at	4.25	4,505
Hauling and Handling—4,380 long tons		at	1.25	5,375
Account Total				$182,307

Page 126, Plaintiff's Exhibit No. 6, Witness Gillette.

273 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Estimated Original Cost of Property Existing June 30, 1920.

Plant Acct. No. 40—Law Expenses.

Law expenses of construction estimated as one-half of one per cent of Accts. Nos. 2 to 39 inclusive $1,405,735 × 0.005= $7,029

Account Total $7,029

Page 388, Plaintiff's Exhibit No. 6, Witness Gillette.

274 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette.

Estimated Original Cost of Property Existing June 30, 1920.

Plant Acct. No. 41—Interest.

Interest is estimated at the rate of 6% per annum, and on the basis of piecemeal construction, under which method the plant was actually built. It is impossible to determine the exact periods during which money was held for, or invested in, construction before the constructed plant items were put into operation, but it is estimated that in order to assure availability of funds as needed, the money would have to be raised and held in readiness for an average period of 3 months before the beginning of construction; and that the average full construction period for work done piecemeal was 6 months. Under these conditions, if construction was spread evenly over the period, the average time of idle investment in constructed plant would be 3 months, and the total time of idle investment 6 months. It is admitted that this estimate does not possess a high degree of accuracy, and in order to assure its establishment within a thoroughly conservative limit, the time involved is set at what is believed to be more nearly a minimum than an average period. Interest is calculated for the total of the preceding accounts.

On Accts. Nos. 1 to 40—$1,472,643 at 6% for ½ year $44,179

Account Total $44,179

Page 389, Plaintiff's Exhibit No. 6, Witness Gillette.

275 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Estimated Original Cost of Property Existing June 30, 1920.

Plant Acct. No. 42—Injuries and Damages.

This account provided for payments for injuries or damages to persons or property due to plant construction. It does not include a provision for employer's liability insurance, as that item would be included in the unit prices on which the estimate is based.

Injuries and damages commonly amount to about 1% of other costs, and are here figured at that rate on the total of accts. Nos. 4 to 32 inclusive.

On Accts. Nos. 4 to 32—$1,149,198 × 0.01=	$11,492
Account Total	$11,492

Page 390, Plaintiff's Exhibit No. 6, Witness Gillette.

276 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Estimated Original Cost of Property Existing June 30, 1920.

Plant Acct. No. 43—Taxes.

Table — shows that taxes in Galveston have varied from 1.60% in 1895 to 3.65% in 1919 on assessed valuations. In 1900 the rate was 2.85% and in 1905, it was 3.18%, but as assessment rates have been about 66⅔%, the above tax rates would show the following percentages on actual value of property.

1895	1.07%
1900	1.90%
1905	2.22%
1919	2.43%

It therefore appears that the greater part of the property of the Company was constructed under a tax rate of approximately 2% of actual value. In the calculation of Acct. No. 41, Interest, the idle period of the money required was taken at ½ year. The idle period of money paid for taxes is believed to be about ½ of that for Interest, or ¼ year.

Taxes are estimated to cover Accts. Nos. 1 to 40 inclusive.

On Accts. Nos. 1 to 40—$1,472,643 at 2% for ¼ year	$7,363
Account Total	$7,363

Page 391, Plaintiff's Exhibit No. 6, Witness Gillette.

277 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette.

Estimated Original Cost of Property Existing June 30, 1920.

Plant Acct. No. 44—Miscellaneous.

In this account are included the items of Organization of an operating force of officers and employees, Business Management of the concern during the construction period, and all Miscellaneous Construction Costs not provided for elsewhere in the classification of accounts. In the case of a property which, like that of the Galveston Electric Company, has been put into operation piecemeal over a considerable period of years, the operating organization grows without the incurrence of large expense. Business Management and Miscellaneous Costs are commonly about 5% of physical property.

On Accounts Nos. 1 to 39—$1,465,614 × 0.05	$73,281
Account Total	$73,281

Page 392, Plaintiff's Exhibit No. 6, Witness Gillette.

278 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Estimated Original Cost of Property Existing June 30, 1920.

Plant Acct. No. 45—Brokerage Fee.

Loans of comparatively small amounts of money for the construction of public utility properties have commonly cost in commissions and expenses from 4% to 5% of the net amount borrowed. The fact that these are most frequently paid in the form of discounts on securities issued has lead to some confusion in this matter, since discounts are obviously dependent upon other factors also—in particular, that of the interest rate which the securities bear. In accordance with these facts, the discounts commonly given on the sale of securities in either large or small amounts are observed to be composed, first of a fee paid for brokerage services, and second of an amount or percentage which is dependent upon interest rates and other factors. Only the fee element is here considered.

The cost of constructing public utilities is usually provided for by the Sale of Bonds totalling from 75% to 80% of the entire amount, and by stock subscriptions or sales for the remaining portion, but the cost of brokerage is substantially the same for the total.

On Accts. Nos. 1 to 44, 47 & 48—$1,676,958 × 0.04= ...	$67,078
Account Total	$67,078

Page 393, Plaintiff's Exhibit No. 6, Witness Gillette.

279 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Estimated Original Cost of Property Existing June 30, 1920.

Plant Acct. No. 47—Materials and Supplies.

In Table — are given twelve months' averages of balances charged to Materials and Supplies on the books of the Company for years 1913 to 1920, and an estimate of the Railway Portion of there based upon information furnished by the Company's store keeper. The Railway Portion for the first 6 months of 1920 is $33,558, and as the amount is constantly changing, a round figure of $33,000 is taken as fair for this report.

Account Total	$33,000

Page 394, Plaintiff's Exhibit No. 6, Witness Gillette.

280 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Estimated Original Cost of Property Existing June 30, 1920.

Plant Acct. No. 48—Working Cash.

Table — shows 12 months' averages of the Company's cash balances for each year from 1906 to 1920. These balances cover cash used by both departments of the Company, and vary over a wide range due to construction requirements and other circumstances. In 1919 the average was $68,387 and for the first 6 months of 1920, $66,289. A reasonable minimum cash requirement for a public utility such as this is 1½ months' operating expenses including taxes. Average monthly expenses of the Railway Department were for 1919 $33,216 and for the first 6 months of 1920, $40,160. There is no probability that the latter average will be reduced in the near future, and necessary cash is accordingly calculated as 1½ times that average, or in round numbers $60,000.

Account Total	$60,000

Page 395, Plaintiff's Exhibit No. 6, Witness Gillette.

281 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Estimated Original Cost of Property Existing June 30, 1920.

Plant Acct. No. 49—Development Cost.

Development Cost calculated for the entire period for which records are available at 8% fair return from 1881 to June 30, 1920.

From table —	$1,414,132
Account Total	1,414,132

Page 396, Plaintiff's Exhibit No. 6, Witness Gillette.

282 Galveston Electric Company, Railway Department.

Report of Halbert P. Gillette, 1920.

Estimated Cost of Reproduction of Property New as of June 30, 1920.

This is an estimate of the cost of a new property with units identically like those of the present property but at prices and under conditions obtaining on June 30, 1920. It is assumed that there is *not* street railway system in Galveston on June 30, 1920, but that conditions are otherwise in all respects as of that date.

The quantities of the estimate are from the same inventory as those of the Estimated Original Cost of Property. Unit Costs used are as nearly as could be secured those in effect June 30, 1920. In numerous instances the costs themselves are not used, but instead, the Estimated Original Cost is multiplied by an "Increase Factor" which is the ratio of the price of the particular plant item at the date of the estimate to average prices for the same item in effect from 1900 to 1915; or more specifically, to the price used in "Estimated Original Cost." Amounts so calculated have generall- been shown in round numbers to the nearest $1,000.

Page 397, Plaintiff's Exhibit No. 6, Witness Gillette.

283 Galveston Electric Company,

Railway Department.

Report of Halbert P. Gillette, 1920.

Estimated Cost of Reproduction of Property New, as of June 30, 1920.

General Summary.

Plant account.	Estimated cost of reproduction.
1. Engineering & Superintendence	$108,879
2. Right of Way	20,283
3. Other Land	35,715
4. Grading	100,367
5. Ballast	74,962
6. Ties	194,583
7. Rails, etc	350,887
8. Special Work	161,855
9. Underground Construction	......
10. Paving	293,634
11. Track Laying, etc	196,685
12. Roadway Tools	4,000
13. Tunnels	......
14. Elevated Structure	......
15. Bridges, etc	61,143
16. Crossings, etc	......
17. Interlocking, etc	......
18. Telephone & Telegraph Lines	......
19. Poles & Fixtures	51,362
20. Underground Conduit	......
21. Transmission	20,680
22. Distribution System	76,401
23. Dams, Canals, etc	......
24 & 25. Power Plant & Sub-Station Buildings	84,574
26, 27 & 28. Other Buildings	131,583
29. Docks & Wharves	......
30 & 31. Power Plant & Sub-Station Equipment	231,828
32. Shop Equipment	23,500
33. Park Property, etc	......
34. Cost of Road Purchased	......
35, 36, 37 & 38. Cars & Car Equipment	590,000
39. Miscellaneous Equipment	7,660
Total	$2,820,581

Page 398, Plaintiff's Exhibit No. 6, Witness Gillette.

284 Galveston Electric Company,

Railway Department.

Estimated Cost of Reproduction of Property New, as of June 30, 1920.

General Summary.

Plant account.	Estimated cost of reproduction.
40. Law Expense	$13,558
41. Interest	226,731
42. Injuries, etc	20,580
43. Taxes	35,426
44. Miscellaneous Undistributed Items	183,338
45. Brokerage Fee	84,380
47. Materials & Supplies	40,000
48. Working Cash	60,000
	$3,484,594

Page 399, Plaintiff's Exhibit No. 6, Witness Gillette.

285 DEFENDANT'S EXHIBIT NO. 7, WITNESS ELROD.

This exhibit is a detailed appraisal showing the record cost and the estimated historical reproduction cost of the street railway property of the plaintiff.

The agreements between the engineers representing the plaintiff and the defendants as to the historical reproduction cost and record cost of said property makes the contents of this exhibit unimportant to the issues involved on this appeal.

286 DEFENDANT'S EXHIBIT NO. 8, WITNESS ELROD.

There *has* been omitted those portions of this exhibit which showed the earnings and expenses of the light and power department of the plaintiff, as having no bearing on the issues involved on this appeal.

287 *Railway Earnings and Expenses, Galveston Electric Company, Galveston, Texas, for the Period July 1st, 1919—June 30th, 1920.*

Revenue from Transportation:

1. Passenger Revenue	$524,019.55
3. Parlor, Chair & Special Cars	340.70
Total revenue from transportation	$524,360.25

Revenue from operations other than transportation:

10. Station and Car Privileges	$2,048.46
15. Rents of Tracks and Terminals	21,590.21
16. Rents of Equipment	73.50
19. Miscellaneous	405.05
Total revenue other than transportation	24,117.22
Total revenues	548,477.47
Total operating expenses (See Detail)	394,394.54
Net revenue	154,082.93

Detail of Expenses.

Maintenance of ways and structures:

1. Supt. of Ways and Structures	2,083.95
3. Ties	2,520.69
4. Rails	44.08
5. Rail Fastenings & Joints	2,162.21
6. Special Work	429.64
8. Roadway and Track Labor	14,549.91
9. Paving	5,302.51
10. Miscellaneous Roadway and Track Expenses	484.66
11. Cleaning and Sanding Track	4,201.90
12. Removal of Snow, Ice & Sand	40.10
16. Crossings, Fences, Cattle Guards & Signs	1,839.32
20. Poles and Fixtures	1,090.05
23. Distribution System	5,264.91
24. Miscellaneous Electric Line Expenses	1.48
25. Buildings & Structures	1,636.60
Total way and structures	$41,652.01

Maintenance of equipment:

29. Superintendence of Equipment	4,269.75
32. Passenger and Combination Cars	16,635.04
35. Service Cars	65.49
36. Electric Equipment of Cars	9,760.19
38. Shop Machinery & Tools	112.50
39. Shop Expenses	795.84
43. (1) Other Operations—Dr. (See L & P (2)	7,031.18
Total equipment	$38,669.99

288 Traffic:

46. Advertising	$2,621.92
Total traffic	2,621.92

Conducting transportation:

48. Superintendence of Transportation	$13,132.23

Power:

56. (3) Power Purchased (See L & P (3))	12,239.61
57. Power Exchanged—Balance	3,918.00*
58. (2) Other Operation—Dr. (See L & P (1))	28,731.87
Total power	$37,053.48

Operation of cars:

60. Passenger Conductors, Motormen & Trainmen	186,397.33
63. Miscellaneous Car Service Expense	4,697.58
66. Carhouse Employes	3,512.13
67. Carhouse Expenses	481.34
72. Other Transportation Expenses	48.56*
Total Operation of Cars	$195,039.82
Total Conducting Transportation	$245,225.53

General and miscellaneous:

73. Salaries & Expenses of General Officers	13,513.42
74. Salaries & Expenses of “ Office clerks	10,739.41
75. General Offices Supplies and Expenses	2,799.58
76. Law Expenses	1,659.90
77. Relief Department Expenses	2,520.00
78. Pensions	480.00
79. Miscellaneous General Expense	8,713.15

Undistributed accounts:

82. Injuries and Damages	21,017.24
83. Insurance	2,443.90
84. Stationery and Printing	1,409.61
85. Store Expense	928.88
Total General & Miscellaneous	$66,225.09

289 Summary.

Total Maintenance of Ways & Structures	$41,652.01
“ Maintenance of Equipment	38,669.99
“ Traffic	2,621.92
“ Conducting Transportation	245,225.53
“ General & Miscellaneous	66,225.09
Total operating expenses	$394,394.54

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*[Red in copy.]

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Galveston Electric Company.

Federal Income and Excess Profits Taxes.

	Excise.	Income.	Income and excess profits.
1910........................	......	......	......
1911 based on earnings of 1910..	$364.19	......	......
1912 Do. 1911..	693.43	......	......
1913 Do. 1912..	1,287.09	......	......
1914 Do. 1913..	......	1,841.35	......
1915 Do. 1914..	......	1,797.96	......
1916 Do. 1915..	......	1,434.60	......
1917 Do. 1916..	......	2,912.99	......
1918 Do. 1917..	......	......	898.01
1919 Do. 1918..	......	......	11,410.30

Period July—December 1919....................	$5,705.16
Period Jan.—June 30, 1920....................	5,407.96
Total	$11,113.12

Normal Taxes.

Period July 1st, 1919, to June 30th, 1920.

All Taxes	$37,055
Federal Income Taxes	11,113*
	$25,942

Total Value of Physical Properties Taxed.

Railway (Including Apportioned Power Plant)......	$1,284,544
Light & Power (Excluding Do.	326,378
Total	1,610,922

Ratio of physical railway properties to total physical Light & Power and Railway Properties, is 1,284,544, or 80 per cent.

1,110,922

Taxes allocable to Railway Department, 80% of $25,942, or $20,754.

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*[Red in copy.]

291 Galveston Electric Company, Railway Department.

Set-up of Recorded Maintenance and Repairs for the Period Included Between the Years 1900 *and* 1920, *Inclusive.*

Year.	Estimated plant value.	Maintenance.
1900	$1,399,800	$33,660
1901	956,663	11,002
1902	958,010	21,452
1903	959,266	56,663
1904	959,322	42,069
1905	963,997	40,042
1906	985,561	35,137
1907	1,005,934	40,523
1908	1,052,364	37,867
1909	1,115,184	42,841
1910	1,178,680	44,449
1911	1,255,978	42,334
1912	1,349,880	48,851
1913	1,443,825	49,641
1914	1,501,002	47,651
1915	1,544,832	41,935
1916	1,574,707	31,319
1917	1,605,463	33,983
1918	1,631,504	40,884
1919	1,639,371	64,108
1920	1,653,723	*88,572
	$26,735,073	$894,983

Average plant value twenty-one (21) years	$1,273,099
Average maintenance & repairs 21 years	42,618
Percentage of maintenance & rep. of plant value	3.35
Average plant value 1900 to 1915 inclusive	1,164,394
Average maintenance & repairs 1900 to 1915 incl	39,757
Percentage of maintenance & rep. of plant value	3.41

Actual recorded maintenance and repairs for 12 months, ending June 30th, 1920 is $80,322. This is 5.429 per cent of the present plant value ($1,720,000) less "Overheads" ($202,000) and "Real Estate" ($38,553)** or $1,479,447.

We are of the opinion that the reasonable allowance for maintenance and repairs is, as recorded, the sum of $80,322.

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*Estimated as double that for the first half of the year.

**This should include $20,283 for right-of-way, which would increase the percentage of 5.429 to 5.5%.

Galveston Electric Company.

Financial Set-up.

Total plant costs, as per agreement		$1,720,000
Deduct:		
Overheads, as per agreement, less engineering, ($202,000, less $60,000, the difference, or $142,000, not being depreciable)	$142,000	
Ft. Crockett Loop, not used or useful	2,100	
Land at P½ St. Do.	2,075	
Working cash	60,000	
Materials and supplies	33,000	
Grade raising	136,281	
		375,456
Total depreciable property, including real estate		$1,344,544
Less accrued depreciation		505,896
Balance		$838,648
Add:		
Overheads, less overhead on grade raising	$122,921	
Working cash	60,000	
Materials and supplies	33,000	
		215,921
Total property for rate base		$1,054,569
Fair return, 8% of $1,054,569	$84,366	
Depreciation, 4% of 1,344,544, (Note)	51,428	
Actual maintenance, per books	80,322	
Taxes, less Federal taxes	20,754	
Operating expense, less maintenance	314,073	
Deficit of fair return	2,466*	
		548,477
Gross revenue	$548,477	$548,477

[*Red in copy.]

NOTE.—Real estate extracted from $1,344,544, as base for application of depreciation rate, is—

Right-of-way	$20,283	
Real estate	38,553	1,344,544
Total	$58,836	58,386
		1,286,158
		4
		51,428,...

(Here follows Defendant's Exhibit No. 9, witness Elrod, marked page 293.)

	Plant Investment Depreciables only	Additions	Deprecia
December 31st, 1904	761910	-	-
" 1905	763987	2077	30476
" 1906	797761	33774	30559
" 1907	804357	6596	31910
" 1908	877070	72713	32174
" 1909	916669	39599	35083
" 1910	986766	70097	36667
" 1911	1049733	62967	39471
" 1912	1168870	119137	41989
" 1913	1226735	57865	46755
" 1914	1266315	39580	49069
" 1915	1313006	46691	50653
" 1916	1326890	13884	52520
" 1917	1368980	42090	53076
" 1918	1378382	9402	54759
" 1919	1384541	6159	55135
June 30th, 1920	1395818	11277	27691
	18787790	633908	667987

DEFENDANT'S EXHIBIT No. 9. WITNESS ELROD.

Depreciation	Accrued Depreciation	Depreciated plant Depreciables only	10% of Gross receipts Working cash	Material Supplies	Overhead	Real Estate	Total Plant Value	Allowable Return	8% of Plant Value Jan. 1st and 4% of Addition Allowable Return & Depreciation	Actual Net Earnings	Surplus or Deficit	Accumulated Surplus or Deficit
-	-	761910	22453	18150	111000	15771	929284	-	-	-		
30476	30476	733511	23546	19078	116687	16395	909217	74426	104902	70677	34225	35594
30559	61035	736726	27536	20006	122375	17018	923661	74088	104647	100878	3769	42362
31910	92945	711412	31450	20934	128062	17647	909499	74157	106067	120208	14141	31044
32174	125119	751951	29050	21862	133750	18264	954877	75668	107842	94319	13523	47592
35083	160202	756467	30359	22790	139437	18888	967941	77974	113057	101273	11779	63649
36667	196869	789897	30236	23718	145124	27305	1016280	80239	116906	92913	23993	93694
39471	236340	813393	36918	24646	150812	28100	1538690	83821	123292	148431	25188	75045
41989	278329	890541	41055	25574	156499	28896	1142565	89075	131064	182718	51654	27329
46755	325084	901651	49807	26502	162187	29692	1169839	93720	140475	236379	95904	70225
49069	374153	892162	51069	27430	167874	30487	1169022	95170	144239	254742	110503	190766
50653	424806	888200	48652	28358	173562	31287	1170059	95389	146042	237439	91388	301071
52520	477326	849564	42184	29286	179249	32079	1132362	94160	146680	183746	37066	363706
53076	530402	838578	37430	30214	184937	32847	1124006	92273	145349	124926	20423	371564
54759	585161	793221	42900	31142	190624	33670	1091557	90296	145055	114831	30224	369854
55135	640296	744245	51903	32070	196312	34465	1058995	87571	142706	128694	14012	384870
27691	667987	727831	54319	33000	202000	34863	1052013	42585	70276	50299	19977	379888
667987	5206530	13581260	650867	434760	2660491	447668	17775046	1320612	1988599	2242469	171925	
											425795	
										253870	253870	

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294 PLAINTIFF'S EXHIBIT NO. 10, WITNESS ELROD.

Computation of Development Cost, 1882, *to June* 30, 1920, *Inclusive.*

Plus 4% during year, ——.
Total at 8%, ——.
Value at Dec. 31, 1919, ——.
Accumulated surplus, ——.

	4%.	Surplus.	Deficit.
1882	815	20,370	371,557
1883	1,474	36,860	612,123
1884	777	19,431	298,782
1885	291*	7,271*	103,525*
1886	378*	9,466*	124,783*
1887	1,565*	....	....
1888	595*	14,863*	167,982*
1889	138	3,442	36,024
1890	494	12,338	119,559
1891	207*	5,182*	46,545*
1892	505*	12,628*	104,907*
1893	1,096*	27,394*	210,722*
1894	1,442*	36,040*	256,694*
1895	1,423*	35,571*	234,585*
1896	1,694*	42,361*	258,667*
1897	2,095*	52,385*	296,182*
1898	3,877*	96,915*	507,370*
1899	3,383*	84,564*	409,917*
1900	3,705*	92,627*	415,740*
1901	3,649*	91,234*	379,154*
1902	2,635*	65,875*	253,488*
1903	3,170*	79,242*	282,339*
1904	1,490*	37,244*	122,871*
1905	1,570*	39,255*	119,911*
1906	447*	11,181*	31,624*
1907	750	18,746	49,094
1908	372*	9,296*	22,542*
1909	277*	6,928*	15,555*
1910	768*	19,194*	39,904*
1911	1,228	30,695	59,087
1912	2,263	56,569	100,828
1913	3,990	99,741	164,608
1914	4,566	114,158	174,444
1915	3,741	93,521	132,324
1916	2,347	58,678	76,874
1917	353	8,815	10,694
1918	76	1,894	2,128
1919	894	22,343	23,237
1920 6 Mo	32*	1,583*	....
	36,666*	917,412*	
	23,906	597,601	
		319,811*	2,280,816*

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*[Red in copy.]

295 PLAINTIFF'S EXHIBIT "A," SUBMITTED AT REQUEST OF COURT.

Railway Department, Galveston Electric Company.

Statement Showing That Larger Proportion of Annual Gross and Net Revenues Received in Last Six Months of Each Calendar Year.

Years 1912-1920, Inclusive.

Gross Earnings.

	First six months.	Last six months.	Increase last 6 months over first six months.	Percentage increase last six months over first six months.
1912	$175,645	$224,904	$49,259	28.1
1913	219,720	278,352	58,632	26.7
1914	235,841	274,853	39,012	16.6
1915	243,526	242,996	530*	....
1916	208,023#	213,818#	5,795	2.8
1917	176,477	197,819	21,342	12.1
1918	200,359	228,638	28,279	14.1
1919	242,153	276,881	34,728	14.3
1920	271,596	309,823	38,227	14.1
Total 9 yrs	$1,973,340	$2,248,084	$274,744	Av. 13.8

Total Operating Expenses.

1912	99,385	112,727	13,342	13.4
1913	111,317	130,872	19,555	17.6
1914	115,699	117,908	2,209	19.0
1915	118,204	109,741	8,463*	7.1*
1916	105,363#	105,727#	364	.3
1917	106,398	114,080	7,682	7.2
1918	130,157	156,560##	26,403##	20.3
1919	169,902	188,425	18,523	10.9
1920	202,471	217,802	15,331	7.6
Total 9 yrs	$1,158,896	$1,253,842	$94,946	Av. 8.2

Net Earnings before Taxes and Depreciation.

1912	77,260	121,172	43,917	56.7
1913	108,403	147,479	39,076	36.5
1914	120,142	156,944	36,802	30.6
1915	125,322	133,255	7,933	6.4
1916	102,660#	108,091#	5,431	5.3
1917	70,079	83,739	13,660	19.5
1918	70,202	72,078##	1,876##	2.7
1919	72,251	88,456	16,205	22.4
1920	69,125	92,021	22,896	33.1
Total 9 yrs	$815,444	$1,003,240	$187,796	Av. 23.0

[*In red ink.]

#Slight increase of last six months over first six months due to mobilization of troops in Galveston during early part year 1916.

##Period of large increases in costs of labor and materials.

296 U. S. Department of Labor,
Bureau of Labor Statistics,
Washington.

Below are shown the index numbers of wholesale prices in the United States, by groups of commodities, as computed by the Bureau of Labor Statistics for the months named. The figures for the last named month are preliminary and subject to revision, while those for the previous months are final. The base used in computing these index numbers is the average for the calendar year 1913.

Index Numbers of Wholesale Prices by Groups of Commodities.

(1913 Equals 100.)

Group.	1920.	
	November.	December.
Farm products	165	144
Food, etc.	195	172
Clothes & clothing	234	220
Fuel and lighting	258	236
Metals and metal products	170	157
Lumber and building material	274	266
Chemicals and drugs	270	188
Housefurnishing goods	369	346
Miscellaneous	220	205
All commodities	207	189

U. S. Department of Labor,
Bureau of Labor Statistics,
Washington.

Index Numbers of Wholesale Prices by Groups of Commodities and by Months.

1913 to 1920 (1913 Equals 100).

Year and month.	Farm products.	Food, etc.	Cloths and clothing.	Fuel and lighting.	Metals and metal products.	Lumber and building material.	Chemicals and drugs.	House-furnishing goods.	Miscellaneous.	All commodities.
1913.										
Av. for year	100	100	100	100	100	100	100	100	100	100
January	97	99	100	103	107	100	101	100	100	100
February	97	98	101	103	105	101	101	100	100	100
March	99	97	100	102	102	101	101	100	99	99
April	97	96	100	98	102	101	101	100	98	98
May	98	95	100	98	103	101	100	100	98	98
June	99	99	99	100	100	101	100	100	100	100
July	101	102	100	99	98	101	99	100	101	100
August	101	104	100	100	99	99	100	100	102	101
September	104	105	100	100	99	99	99	100	102	102
October	103	102	100	100	99	98	100	100	100	101
November	101	105	100	99	96	98	100	100	100	101
December	101	101	99	99	92	98	100	100	100	99
1914.										
Av. for year	103	103	98	96	87	97	101	99	99	100
January	101	102	98	99	92	98	100	99	99	100

Index Numbers of Wholesale Prices by Groups of Commodities and by Months.—Continued.

Year and month.	Farm products.	Food, etc.	Cloths and clothing.	Fuel and lighting.	Metals and metal products.	Lumber and building material.	Chemicals and drugs.	House-furnishing goods.	Miscellaneous.	All commodities.
February	102	100	99	99	92	99	100	99	100	99
March	103	97	99	99	92	99	100	99	101	99
April	101	95	99	98	91	99	99	100	101	98
May	104	96	99	95	87	98	100	99	101	98
June	104	100	99	94	86	98	100	99	99	99
July	104	104	99	95	85	97	99	99	97	100
August	109	112	99	94	85	97	99	99	98	103
September	108	116	98	95	86	96	104	99	99	104
October	103	107	97	93	83	96	105	99	96	99
November	101	106	96	93	81	95	105	99	96	98
December	99	105	96	94	83	94	104	99	98	98
1915.										
Av. for year	105	104	100	93	97	94	114	99	99	101
January	102	106	96	93	83	94	103	99	100	99
298 February	105	108	97	92	87	95	102	99	100	101
March	105	104	97	92	89	94	102	99	99	99
April	107	105	99	89	91	94	102	99	99	100
May	109	105	99	89	96	94	102	99	98	101
June	105	102	99	89	100	93	104	99	97	99
July	108	104	99	102	102	93	108	99	98	101
August	107	102	99	92	100	92	112	99	97	100
September	103	100	100	94	100	92	116	99	97	99
October	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

October	105	103	103	99	100	93	124	99	99	101
November	102	107	105	98	104	94	142	99	100	103
December	103	111	107	100	114	97	153	99	103	106
1916.										
Avr. for year	122	126	128	119	148	101	159	115	120	124
January	108	113	110	105	126	99	150	105	107	110
February	109	114	113	106	132	100	170	105	106	112
March	111	115	117	108	141	101	175	105	109	114
April	114	117	119	108	147	101	172	108	110	117
May	116	119	122	107	151	102	166	112	113	118
June	116	119	124	108	149	101	166	112	119	119
July	118	121	126	108	145	99	156	121	120	119
August	126	128	128	110	145	100	146	122	122	123
September	131	133	131	115	148	100	147	122	125	128
October	136	140	138	133	151	101	150	124	132	134
November	146	150	146	155	160	104	155	123	135	144
December	142	145	155	170	185	106	159	124	137	146
1917.										
Av. for year	189	176	181	175	208	124	198	144	155	176
January	148	150	161	176	183	106	159	132	138	151
February	151	159	162	185	190	108	160	132	141	156
March	163	160	164	188	199	110	165	132	143	161
April	181	182	169	184	208	114	170	139	149	172
May	197	190	173	194	217	117	179	139	150	182
June	197	187	179	201	239	127	180	144	152	185
July	199	181	187	192	257	132	198	152	153	186
August	205	180	193	165	249	133	209	152	156	185

Index Numbers of Wholesale Prices by Groups of Commodities and by Months.—Continued.

Year and month.	Farm products.	Food, etc.	Cloths and clothing.	Fuel and lighting.	Metals and metal products.	Lumber and building material.	Chemicals and drugs.	House-furnishing goods.	Miscellaneous.	All commodities.
September	204	178	193	160	226	134	223	152	155	183
October	208	183	193	146	182	134	252	152	163	181
November	212	184	198	155	174	134	240	155	166	183
December	205	185	202	158	174	135	238	155	170	182
1918.										
Av. for year	220	189	239	163	181	151	221	196	193	196
January	207	187	211	157	174	136	232	161	178	185
February	208	186	216	157	176	138	232	161	181	186
March	212	177	223	158	176	144	232	165	184	187
April	217	178	232	172	177	146	229	172	191	190
May	214	177	237	160	178	148	223	173	194	190
June	217	179	245	159	178	150	219	198	196	193
299 July	224	184	249	166	184	154	216	199	190	198
August	230	191	252	166	185	157	222	221	191	202
September	237	199	252	167	184	159	220	226	194	207
October	224	201	257	167	187	158	218	226	196	204
November	221	206	256	171	188	164	215	226	203	206
December	222	210	250	171	184	164	195	227	204	206
1919.										
Av. for year	234	210	261	173	161	192	179	236	217	212
January	222	207	234	170	172	161	191	218	212	203

January	222	207	234	176	172	161	191	218	212	203
February	218	196	223	169	168	163	185	218	208	197
March	228	203	216	168	162	165	183	218	217	201
April	235	211	217	167	152	162	178	217	216	203
May	240	214	228	167	152	164	179	217	213	207
June	231	204	258	170	154	157	174	233	212	207
July	246	216	282	171	158	186	171	245	221	218
August	243	227	304	175	165	208	172	259	225	226
September	226	211	306	181	160	227	173	262	217	220
October	230	211	313	181	161	231	174	264	220	223
November	240	219	325	179	164	236	176	299	220	230
December	244	234	335	181	169	253	179	303	220	238
1920.										
Av. for yr	...	...	...	...	...	...	...	...	...	...
January	246	253	350	184	177	268	189	323	227	248
February	237	244	356	187	189	300	197	329	227	249
March	239	246	356	192	192	325	205	329	230	253
April	246	270	353	213	195	341	212	331	238	265
May	244	287	347	235	193	341	215	339	246	272
June	243	279	335	246	190	337	218	362	247	269
July	236	268	317	252	191	333	217	362	243	262
August	222	235	299	268	193	328	216	363	240	250
September	210	223	278	284	192	318	222	371	239	242
October	182	204	257	282	184	313	216	371	229	225
November	165	195	234	258	170	274	207	369	220	207
December	144	172	220	236	157	266	188	346	205	189

300 Board of Commissioners,
City of Galveston.
Frank S. Anderson, City Attorney.

Galveston, Texas, January 28, 1921.

Hon. J. C. Hutcheson, Jr.,
United States District Judge,
Houston, Texas.

DEAR SIR:

In re Galveston Electric Company vs. City of Galveston.

Since writing you yesterday our auditor has furnished me with a detail of expenses of the Galveston Electric Company for the six months ending December 31, 1920, and as I am not advised as to whether a statement of such expenses was offered in evidence at the hearing in Houston on January 21st, I enclose the same herewith and would thank you to consider the same as a part of the record.

I call your attention to this: The net earnings of the Company for the six months ending December 31, 1920, as shown by the books of the company was $44,782.91; to that, however, should be added, the sum of $29,500, included in operating expenses for the six months ending December 31, 1920, paid for the rate litigation, which I understand from Mr. Wayman the attorneys for the company concede is not a proper charge to operations, and this would make the net earnings for the six months mentioned, $74,282.91.

Submission of the statement enclosed concludes the case for the city.

Yours very respectfully,
(Signed) FRANK S. ANDERSON.

F. S. A.: B.

DEFENDANTS' EXHIBIT J. C. H., JR.

Galveston Electric Co., Galveston, Texas,

Railway Department.

	12 months ending 12-31-1920.	6 months ending 6-30-1920.	6 months ending. 12-31-1920.
Gross Revenue	$581,418.83	$271,595.92	$309,822.91
Operating Expenses	453,272.89	205,970.54	247,302.35
Balance	128,145.94	65,625.38	62,520.56
Taxes	35,475.30	17,737.65	17,737.65
Net Earnings	$92,670.64	$47,887.73	$44,782.91

Detail of Expenses.

Maintenance.

	12 months ending 12-31-1920.	6 months ending 6-30-1920.	6 months ending. 12-31-1920.
Ways & Structures:			
No. 1. Superintendence	$2,316.55	$1,143.95	$1,172.60
2. Ballast	158.42	......	158.42
3. Ties	2,665.96	1,991.36	674.60
4. Rails	1.17	2.25	1.08*
5. Rail Fastenings & Joints	2,234.42	1,232.83	1,001.59
6. Special Work	394.89	316.74	78.15
8. Roadway & Track Labor	15,948.24	8,420.95	7,527.29

[*Red in copy.]

DEFENDANTS' EXHIBIT J. C. H., JR.—*Continued.*

	12 months ending 12-31-1920.	6 months ending 6-30-1920.	6 months ending. 12-31-1920.
9. Paving	4,835.79	2,552.73	2,283.06
10. Miscl. Track & Roadway Exp	1,192.03	303.93	888.10
11. Clearing & Sanding Track	4,690.38	2,087.35	2,603.03
12. Removal of Snow, Ice & Sand	48.32	25.60	22.72
15. Bridges, Trestles & Culverts	392.27	......	392.27
16. Crossings, Fences, Cattle Guards & Signs	1,507.44	778.05	729.39
20. Poles & Fixtures	1,472.18	689.94	782.24
23. Distribution System	6,218.84	3,188.05	3,030.79
24. Miscl. Line Expenses	5.09	1.18	3.91
25. Buildings & Structures	3,569.20	1,398.97	2,170.23
	$47,651.19	$24,133.88	$23,517.31
Equipment:			
29. Superintendence	$4,387.00	$2,217.00	$2,170.00
32. Passenger & Combination Cars	17,503.75	8,713.59	8,790.16
35. Service Cars	158.64	65.09	93.55
36. Electric Equipment of Cars	10,265.54	5,063.31	5,202.23
38. Shop Machinery & Tools	160.78	7.45	153.33
39. Shop Expenses	879.25	419.77	459.48
43. Other Operations—Dr	9,855.13	3,663.34	6,191.79
	$43,210.09	$20,149.55	$23,060.54
Total Maintenance	$90,861.28	$44,283.43	$46,577.85

Traffic.

46. Advertising	$2,448.59	$1,408.15	$1,040.44

Conducting Transportation.

48. Superintendence	$14,101.64	$6,883.79	$7,217.85
Power:			
56. Power Purchased	$12,549.50	$5,492.30	$7,057.20
57. Power Exchanged—Balance	3,480.00*	2,226.00*	1,254.00*
58. Other Operations—Dr.	31,215.30	15,408.22	15,807.08
	$40,284.80	$18,674.52	$21,610.28
Operation of Cars:			
60. Passenger Conductors & Trainmen	$197,379.05	$95,244.65	$102,134.40
63. Miscl. Car Service Exp.	4,766.79	2,171.63	2,595.16
66. Carhouse Employees	4,272.59	1,860.83	2,411.76
67. Carhouse Expenses	455.86	201.81	254.05
72. Other Transportation Exp.	85.67	144.58*	230.25
	$206,959.96	$99,334.34	$107,625.62
Total Conducting Transportation	$261,346.40	$124,892.65	$136,453.75

General & Miscellaneous.

73. Salaries & Exp. of Genl. Officers	$12,700.99	$6,482.50	$6,218.49
74. Salaries & Exp. of Genl. Office Clerks	11,650.43	5,587.12	6,063.31

[*Red in copy.]

DEFENDANTS' EXHIBIT J. C. H., JR.—*Continued.*

	12 months ending 12-31-1920.	6 months ending 6-30-1920.	6 months ending. 12-31-1920.
75. Genl. Office Supplies & Exp.	2,853.99	1,383.08	1,470.91
76. Law Expenses	1,609.57	1,096.93	512.64
77. Relief Department Exp.	2,491.00	1,268.00	1,223.00
78. Pensions	480.00	240.00	240.00
79. Miscellaneous & Genl. Exp.	38,798.04	6,324.72	32,473.32
82. Injuries & Damage	22,261.98	10,430.69	11,831.29
83. Insurance	2,323.63	1,149.74	1,173.89
84. Stationery & Printing	1,891.70	922.97	968.73
85. Store Expenses	1,545.29	500.56	1,044.73
88. Rent of Equipment	10.00	......	10.00
	$98,616.62	$35,386.31	$63,230.31

Recapitulation.

Traffic	$2,448.59	$1,408.15	$1,040.44
Conducting Transportation	261,346.40	124,892.65	136,453.75
General & Miscellaneous	98,616.62	35,386.31	63,230.31
Total Operating Expenses	$362,411.61	$161,687.11	$200,724.50
Total Maintenance	90,861.28	44,283.43	46,577.85
Total Expenses—Operating & Maint.	$453,272.89	$205,970.54	$247,302.35
303 Journal Entry #2512, June 1920			$3,500.00
#2523, July			4,000.00

#2535, Aug.	5,000.00
#2544, Sep.	3,500.00
#2557, Oct.	4,000.00
#2569, Nov.	6,000.00
#2587, Dec.	7,000.00
Est. Ry. Rate Case Expense—Chgd. Op. Exp.	$33,000.00
Actual amount expended	32,805.18
	$194.82

304

No. 40. Eq.

GALVESTON ELECTRIC COMPANY

vs.

CITY OF GALVESTON et al.

On this the 21st day of June 1921, the foregoing Statement of Evidence in this cause was presented to me for approval by the attorneys for the plaintiff at Galveston in the Southern District of Texas, pursuant to notice served upon the attorneys for the defendant in said cause, and no objections thereto having been made, nor amendments thereto proposed by any party, I find said Statement to be true, complete, and properly prepared, and I approve the same and order it to be filed by the clerk.

(Signed) J. C. HUTCHESON, JR.,
Judge United States District Court,
Southern District of Texas.

(Indorsements:) No. 40 in Equity. In the United States District Court for Southern District of Texas at Galveston. Galveston Electric Company vs. City of Galveston et al. Condensed Statement of Evidence. Filed 21st day of June, 1921. L. C. Masterson, Clerk, by G. Predecki, Deputy.

305

Findings of Special Master.

Filed Nov. 4, 1920.

In the District Court of the United States for the Southern District of Texas, at Galveston.

In Equity.

No. 40.

GALVESTON ELECTRIC COMPANY

vs.

CITY OF GALVESTON et al.

To the Honorable J. C. Hutcheson, Judge:

Herewith is respectfully submitted the report of my findings as Special Master on the issues referred, based on agreements of the parties and the testimony heard, all as contained in the record on file.

The ultimate question is whether the ordinance of the City of Galveston limiting complainant to a maximum street car fare of five cents for adults and one-half thereof for children, is confiscatory in its operation, as inhibited by the Fourteenth Amendment to the Federal Constitution. The various factors to be considered in the determination of such question, prescribed by the decisions as I understand them, will be treated in the following order:

Base Value.

In arriving at the present fair value of complainant's property for rate-making purposes, there has been used as a beginning point the agreed historical reproduction cost of $1,720,000.00, less unused property of the value of $4,175.00, or a net sum of $1,715,825.00. This does not include brokerage estimated at $67,078.00, contended for by complainant. As such expense is a normal incident of large industrial investments, and has not been amortized and since the record shows that during the larger part of its history this plant has been operated at a loss, I have allowed the item as a proper element of cost by adding it to said beginning point.

306 The aforementioned sum of $1,715,825.00 includes $136,281.00 spent by complainant for raising the grade of its tracks to conform to the general grade raising made in Galveston following the 1900 storm. Defendants resist the inclusion of this item in the cost estimate, contending that if any consideration be given it, it should be or should have been amortized. It has not in fact been amortized and the income of complainant did not permit thereof. Because such grade raising was a necessity, and has given increased value to the franchise which the City of Galveston will have at its disposal upon the termination of complainant's present franchise, I have allowed such item as a part of the plant cost.

Therefore, the base value employed is $1,715,825.00 plus $67,078.00 = $1,782,903.00.

Reproduction Value.

While the usual differences of opinion can be found in the decisions of the courts and commissions, the rule in determining the fair value of a public utility for rate-making purposes, according to my understanding of controlling decisions, is to give just consideration to the reproduction cost or present values of property. The difficulty arises in the application of the rule. But the diminished purchasing power of money forbids its entire elimination.

It was admitted by both parties on the hearing that present prices are about 2.1 as compared to the pre-war unit. It was also admitted that present prices are reasonably certain to decline. How low they will go and how soon they will reach the bottom are problematical. The fact cannot be escaped that they are high now and have been for two or more years. Complainant's expert witness, by means of a formula which considered the volume of money in the United States, the velocity of its turn-over, the efficiency of
production and the increase in population, and by applying
307 such formula with apparent success to official data running
back, many years, reached the conclusion that present prices

will descend to a plateau of about 1.6. The average of prices during the past decade is said to be 1.5, but this includes the abnormal war prices, I have reached the conclusion that an allowance of 1.33⅓ in the instant case, would be fair under all the circumstances. Should the future prove it a false prophecy, the party aggrieved has a quick remedy in the Courts.

Application of Fair Value to Plant Components.

The allowance of 33⅓% over cost in arriving at present fair value, applies only to depreciable property and also does not apply to additions to property made from January 1, 1915, to June 30, 1920, which were included at cost.

The items embraced in the historical reproduction cost of $1,782,903.00, for which no increased value is allowed, are:

Working cash, material and supplies	$93,000.00
Real estate and right-of-way	58,836.00
Grade raising	136,281.00
Agreed overheads, plus brokerage and less engineering included in depreciable property	209,078.00
Additions to property—Jan. 1, 1915, to June 30, 1920	131,000.00
Total	$628,195.00

Total historical reproduction cost	$1,782,903.00
Less items not appreciated	628,195.00
Balance	$1,154,708.00
Add 33⅓% of such balance	384,902.66
Total of appreciated items	$1,539,610.66
Add items not appreciated	628,195.00
Total	$2,167,805.00

(This sum—$2,167,805.00—represents my estimate of total fair value of complainant's plant for rate-making purposes, exclusive of items of accrued depreciation and development cost, which follow below.)

Accrued Depreciation.

308 The engineers of the respective parties disagree with reference to the amount of accrued depreciation, such difference amounting to about $100,000.00. The estimate of plaintiff is based on actual inspection of the component parts of the plant; that of defendants largely on mortality tables worked out by engineers and others. In my judgment, the former is more likely to be correct. Its application in the instant case is strengthened by the admitted fact that complainant's plant has, to a large extent,

been rebuilt since the 1900 storm. The accrued depreciation contended for by complainant, and which was adopted by me, is $390,000.00. Since the present fair value of depreciables, exclusive of the 1915-1920 purchase, was increased 33⅓% over the pre-war base, the above estimate of accrued depreciation should be correspondingly increased. Therefore, the actual amount of depreciation to be allowed is $390,000.00 plus $130,000.00 = $520,000.00.

Development Cost.

Development cost, going-concern value or values of plant in successful operation, is, as I understand the decisions, a just and necessary element for consideration in controversies of this character. Various methods of arriving at such value have been applied. The actual outlay during the history of the complainant company and its predecessors in title, which, according to some methods of computation, may be considered as development cost, range from two million dollars downward.

It seems to me that what a prospective purchaser should be willing to pay for a going concern whose physical properties are of the net worth of about $1,600,000.00, rather than build a similar plant, create the executive and operating organizations thereof, with the accompanying expenses, hazards and losses, is a fair test of the going-concern value. Taking a plant which has been built up during the course of many years, now operating successfully, man and machine power harmoniously co-ordinated, fitted by past experience to local conditions, with the price of mistakes in construction
309 tion and development already paid, it seems to me that it should have a going concern value at least equal to one-third of its physical properties.

In other words, it is my best judgment that the going-concern value of such a plant should be at least twenty-five per cent of the whole value. I have therefore allowed as going-concern value (or by whatever name called) one-third of $1,600,000. This is substantially the same amount as that allowed for accrued depreciation and they may be considered as off-setting each other. Therefore, these two items will be eliminated from subsequent calculations herein, and the fair value of complainant's plant, for rate-making purposes, held at $2,167,805.66.

Gross Revenue.

It is agreed that the gross revenue from the operation of complainant's plant during the twelve months ending June 30, 1920, was $548,477.00.

Operating Expenses.

It is agreed that the operating expenses, less maintenance, during said period was $314,073.00.

Maintenance.

It is agreed that complainant spent $80,322.00 for actual maintenance during said period. Defendants' engineer contends that such expenditure was sufficient, complainant's engineer that it was sub-normal by more than $20,000.00. I have accepted the views of the former.

Depreciation Allowance.

It is estimated that 4% per annum is a proper annual allowance for depreciation. The same should, in my judgment, be applied to the present fair value, for rate-making purposes, of complainant's depreciable property. It was found, supra, that such value of depreciables purchased from January 1, 1915, to June 30, 1920, is $131,000.00. The sum of $1,539,610.66 was also found as
310 such fair value of other depreciables. The total value of these, or $1,670,610.00, is the amount of depreciable values on which complainant should be allowed to earn 4% annually as a depreciation allowance. The result is $66,824.40.

Taxes.

It is admitted that complainant is entitled to charge ad valorem taxes amounting to $20,754.00. Defendant denies that complainant is entitled to charge income taxes. It seems to me that complainant is entitled to the allowance of the income tax, and I am informed that one of the United States District Judges for the Southern District of New York has recently so held, this being the only expression of a federal court on the question. However, the difference will not affect the final result of my findings.

Fair Returns.

It is admitted that complainant is entitled to earn 8% per annum on the fair value of its plant.

From the foregoing, the following résumé is made:

Gross revenue from operations....................		$548,477.00
Operating expenses, less maintenance..	$314,073.00	
Maintenance	80,322.00	
Depreciation allowance...............	66,824.40	
Taxes (including income)...........	37,008.00	
Fair return (8% of $2,167,805.66)....	173,404.45	
Total required revenue....................		671,631.85
Deficit		123,154.85

These figures indicate that complainant earned during the year ending June 30, 1920, the sum of $50,249.60, the same being the difference between the gross revenue and the aggregate of operating expense, maintenance, depreciation, allowance and taxes. Said sum of $50,249.60 is approximately 1.86% of the fair value of its plant ($2,167,805.66) as I conceive it to be under the facts and the principles of law applicable. In my opinion, if the expression be desired, such return is insufficient and confiscatory.

HENRY J. DANNENBAUM,
Special Master.

Houston, Oct. 30, 1920.

311 (Indorsements:) No. 40. In Equity. In the District Court of the United States for the Southern District of Texas, at Galveston. Galveston Electric Company vs. City of Galveston, et al. Findings of Special Master. Filed Nov. 4, 1920. L. C. Masterson, Clerk, by G. Predecki, Deputy.

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312 *Plaintiff's Exceptions to Special Master's Report.*

Filed Nov. 23, 1920.

In the District Court of the United States for the Southern District of Texas, at Galveston.

In Equity.

#40.

GALVESTON ELECTRIC COMPANY

v.

CITY OF GALVESTON et al.

Exceptions of Galveston Electric Company, Complainant, to Master's Report.

Now comes the Galveston Electric Company and excepts to the master's report in the above entitled cause in the following particulars and for the following reasons:

First. Because the master, although finding it to have been admitted by both parties that at present prices it would cost to reproduce the complainant's properties about two and one tenth times the pre-war cost thereof, did not accept said fact as a basis of determining the present fair value of such properties.

Second. Because the master, although finding it to have been admitted by both parties that at present prices it would cost to reproduce the complainant's properties about two and one tenth times the prewar cost thereof, did not find as the present fair value of such properties said cost to reproduce the same at present prices.

Third. Because the master, although finding it to have been admitted by both parties that at present prices it would cost to reproduce the complainant's properties about two and one-tenth times the pre-war cost thereof, did not give to said fact in determining the present fair value of said properties the weight to which said fact was entitled.

Fourth. Because the master, although complainant's evidence uncontroverted by the defendant showed that commodity prices for a
large number of years to come will not descend below 60%
313 above the pre-war level of prices, did not accept said fact as
the basis of determining the present fair value of complainant's properties.

Fifth. Because the master, although complainant's evidence uncontroverted by the defendant showed that commodity prices for a large number of years to come will not descend below 60% above the pre-war level of prices, did not find as the present fair value of the complainant's properties an amount equal to 60% above their pre-war value.

Sixth. Because the master, although complainant's evidence uncontroverted by the defendant showed that commodity prices for a large number of years to come will not descend below 60% above the pre-war level of prices, did not in determining the present fair value of complainant's properties give to such fact the weight to which it is entitled.

Seventh. Because the master, in purporting to find the present fair value of complainant's property applied to the prewar values of a certain portion of complainant's property an increase factor of only 33 1/3%, which resulting finding of the value of said properties is contrary to the evidence and the weight thereof, since said evidence required the use of an increase factor substantially in excess of 33 1/3% and consequently a substantially larger resulting value of complainant's properties.

Eighth. Because the master, in purporting to find the present fair value of complainant's property failed to allow any appreciation over the pre-war value thereof in the item of expenditures made for grade raising, such failure being contrary to the evidence and the weight thereof.

Ninth. Because the master, in purporting to find the present fair value of the complainant's property failed to allow any appreciation over the pre-war value in the various overhead expenditures other than expenditures for engineering, such failure being contrary to the evidence and the weight thereof.

Tenth. Because the master found as the value of complainant's property for rate making purposes $2,167,805, contrary to the evidence and the weight thereof, which evidence if given proper

314 weight, would have led to a value substantially larger than the value found by the master.

GALVESTON ELECTRIC COMPANY,
C. R. WHARTON,
By BALLINGER MILLS,
WILLIAM E. TUCKER,
Solicitors for Galveston Electric Company, Complainant.

(Indorsements:) No. 40. In Equity. Galveston Electric Company vs. City of Galveston, et al. Plaintiff's Exceptions to Special Master's Report. Filed Nov. 23, 1920. L. C. Masterson, Clerk, by G. Predecki, Deputy.

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315 *Defendants' Exceptions to Master's Report.*

Filed Nov. 23, 1920.

In the District Court of the United States for the Southern District of Texas, at Galveston.

In Equity.

No. 40.

GALVESTON ELECTRIC CO.
vs.
CITY OF GALVESTON et al.

Exceptions Taken by Defendants to the Report Filed Herein on November 4th by Henry J. Dannenbaum, Esq., Special Master.

Defendants except to the report of the Special Master.

First Exception.

For that the Master, in fixing the fair value of plaintiff's depreciable properties, has appreciated the agreed historical reproduction cost thereof 33 1/3%, whereas, if valued in this manner, he should have found the base value for rate-making purposes of the depreciable property, used and useful, to be not more than the agreed historical reproduction cost thereof, less a reasonable and adequate deduction for accrued depreciation.

Second Exception.

For that the Master, in fixing the value of plaintiff's properties for rate-making purposes, has included therein the estimated amount of $67,078.00 for brokerage, whereas he should not have allowed anything therefor.

Third Exception.

For that the Master has included in his valuation the sum of $136,281.00 spent by plaintiff for raising the grade of its tracks to conform to the grade raising made in Galveston following the 1900 storm, whereas he should not have included anything for this item.

Fourth Exception.

For that the Master has found the accrued depreciation to 316 be only $390,000.00, based on the historical reproduction cost of the property, whereas, if determined in this manner, he should have found the accrued depreciation to be $505,896.00 (the amount found by Mr. Elrod), which amount would be increased in the same ratio as any increase, if any, that may be allowed in determining the present value of the depreciable property over the historical reproduction cost.

Fifth Exception.

For that the Master has allowed, in valuing the properties, for development cost or going value, a sum equal to 1/3 of $1,600,000.00, whereas he should not have allowed any additional or separate amount for this item, the depreciable property and overheads having been considered and valued as a going concern.

Sixth Exception.

For that the Master has allowed a depreciation annuity of 4% of the reported value of plaintiff's depreciable property, whereas, having fixed the value of the properties too high, the depreciation annuity should be correspondingly reduced upon a reduction to a fair value of the depreciable property.

Seventh Exception.

For that the Master has permitted and allowed the charging of income taxes, amounting to $16,254.00, as a part of the taxes on the property, whereas he should not have taken such item into account, it being a charge, for rate-making purposes, payable and to be paid by the stockholders.

Respectfully submitted,

FRANK S. ANDERSON,
City Attorney;
McDONALD & WAYMAN,
Attorneys for Defendants.

(Indorsements:) No. 40. In Equity. Galveston Electric Co. vs. City of Galveston et al. Defendant's Exceptions to Master's Report. Filed Nov. 23, 1920. L. C. Masterson, Clerk, by G. Predecki, Deputy.

317 *Decree.*

Filed and Entered March 11, 1921.

In the United States District Court for the Southern District of Texas, Galveston Division.

In Equity.

No. 40.

GALVESTON ELECTRIC COMPANY

vs.

CITY OF GALVESTON et al.

The above entitled and numbered cause came on to be heard at this the January, 1921 term of this court, and the court having heretofore referred the same to Henry J. Dannenbaum, Special Master, and said master having taken testimony and in due time having made and filed his report herein and exceptions to the Master's said report having been made, filed and urged, both by the complainant and the defendants, and the court having considered said report, and the exceptions thereto, and having taken additional testimony in open court, and having heard the arguments of counsel, it is here now on this 10th day of February, 1921, found, considered, ordered, adjudged and decreed by the court, viz:

That the first and fourth exceptions of the defendants and the first, second, third, fourth, fifth, sixth, seventh, eighth and tenth exceptions of the complainant should be, and the same are, here now overruled, and that the ninth exception of the complainant, and the second, third, fifth, sixth and seventh exceptions of the defendants should be, and the same are here now sustained; and the court being of the opinion that complainant is not entitled to an injunction as prayed for, on the ground that the rate fixed by the ordinance of the defendant city of Galveston, complained of and sought to be enjoined, is not shown by the evidence to be confiscatory; it is here now further considered, ordered, adjudged and decreed by the court, that the injunction prayed for by complainant be, and the same is, hereby denied, and that complainant's bill be, and the same is, dismissed without prejudice; it is further considered, ordered, adjudged
318 and decreed by the court, that said special master is hereby
allowed the sum of Twenty-five Hundred Dollars ($2,500.00) fee for his services, to be taxed as costs, and that one-half of the master's said fee should be paid by, and is hereby taxed against the complainant Galveston Electric Company and the other one-half of the master's fee should be paid by, and is hereby taxed against the defendants, city of Galveston, et al., and that all other costs incurred in this proceeding to date should be equally borne and paid by the parties hereto, and that the complainant Galveston Electric Company

and the defendant City of Galveston, et al., should each pay one-half of all costs incurred in this proceeding to date, and the same are hereby taxed against the said parties, to which judgment the plaintiff in open court excepted and gave notice of appeal.

Enter

J. C. HUTCHESON, JR.

(Indorsements:) No. 40, In Equity. In the United States District Court for the Southern District of Texas, Galveston Division. Galveston Electric Co. vs. City of Galveston, et al. Decree. Filed 11 day of Mch. 1921. L. C. Masterson, Clerk, by J. L. Sexton, Deputy.

319 *Petition for Rehearing.*

Filed March 11, 1921.

In the District Court of the United States for the Southern District of Texas, at Galveston.

GALVESTON ELECTRIC COMPANY
v.
CITY OF GALVESTON.

To the honorable judge of said court:

Comes now, Galveston Electric Company and leave with the Court being had, files this their petition for a rehearing and asks the Court to reconsider this cause and to set aside the decree heretofore entered denying it an injunction and dismissing its bill, and urges the following grounds for such rehearing:

First.

The Court erred in sustaining the defendants' second exception to the Master's report and in thus disallowing any sum for brokerage. The Master had found and allowed $67,078.00 for brokerage fees, and we submit that the Master was correct in making this allowance and that it should have been sustained.

Second.

The Court erred in sustaining the third exception of the defendants to the Master's report and in disallowing the amount found by the Master for grade raising. The Master had found that the Company had expended $136,281.00 for raising the grade of its tracks and that this should be allowed as a capital item.

Third.

The Court erred in sustaining the defendants' fifth exception to the Master's report. The Master had allowed approximately $500,-

000.00 for going value and the Court in sustaining this exception disallowed any sum whatever for going concern value. Under
320 the facts shown in this case, the complainant was entitled to
an allowance for going concern value in substantially less than that found by the Master.

Fourth.

The Court erred in sustaining the sixth exception of the defendants to the Master's report. The Master had estimated 4% per annum as a proper annual allowance for depreciation, this to be applied to the company's present value of depreciable property for rate making purposes. The Court finds that this 4% depreciation allowance should be based upon a substantially lower sum than the present fair value of the depreciable property.

Fifth.

The Court erred in sustaining the defendants' seventh exception to the Master's report. The Master had found that the complainant company had paid $16,254.00 income tax and that these income taxes had been properly charged as operating expenses. The Court in sustaining this exception erroneously holds that these income taxes are not chargeable as an operating expense.

Sixth.

The Court erred in overruling the first exception to the Master's report interposed by the complainant. This first exception was as follows: The complainant excepts because the Master, although finding it to have been admitted by both parties that at present prices it would cost to reproduce the complainant's properties about 2 1/10 times the pre-war cost thereof did not accept said fact as a basis of determining the present fair value of such properties.

Seventh.

The Court erred in overruling the complainant's second exception to the Master's report which was as follows: The complainant excepts to the Master's report.

Because the master, although finding it to have been admitted by
both parties that at present prices it would cost to reproduce
321 the complainant's properties about two and one-tenth times
the pre-war cost thereof, did not find as the present fair value of such properties said cost to reproduce the same at present prices.

Eighth.

The Court erred in overruling the complaiant's third exception to the Master's report which was as follows: The Complainants except to the Master's report,

Because the master, although finding it to have been admitted by both parties that at present prices it would cost to reproduce the complainant's properties about two and one-tenth times the pre-war cost thereof, did not give to said fact in determining the present fair value of said properties the weight to which said fact was entitled.

Ninth.

The Court erred in overruling the complainant's fourth exception to the Master's report which was as follows: The complainants except to the Master's report,

Because the master, although complainant's evidence uncontroverted by the defendant showed that commodity prices for a large number of years to come will not descend below 60% above the pre-war level of prices, did not accept said fact as the basis of determining the present fair value of complainant's properties.

Tenth.

The Court erred in overruling the complainant's fifth exception to the Master's report which was as follows: The complainants except to the Master's report,

Because the master, although complainant's evidence uncontroverted by the defendant showed that commodity prices for a large number of years to come will not descend below 60% above the pre-war level of prices, did not find as the present fair value of the complainant's properties an amount equal to 60% above their pre-war value.

Eleventh.

The Court erred in overruling the complainant's sixth exception to the Master's report which was as follows: The complainants
322 except to the Master's report,

Because the master, although complainant's evidence uncontroverted by the defendant showed that commodity prices for a large number of years to come will not descend below 60% above the pre-war level of prices, did not in determining the present fair value of complainant's properties give to such fact the weight to which it is entitled.

Twelfth.

The Court erred in overruling the complainant's Seventh exception to the Master's report which was as follows: The complainants except to the Master's report,

Because the master, in purporting to find the present fair value of complainant's property applied to the pre-war values of a certain portion of complainant's property an increase factor of only 33-1/3%, which resulting finding of the value of said properties is contrary to the evidence and the weight thereof, since said evidence required the use of an increase factor substantially in excess of 33-

1/3% and consequently a substantially larger resulting value of complainant's properties.

Thirteenth.

The Court erred in overruling the complainant's eighth exception to the Master's report which was as follows: The complainants except to the Master's report,

Because the master, in purporting to find the present fair value of complainant's property failed to allow any appreciation over the pre-war value thereof in the item of expenditures made for grade raising, such failure being contrary to the evidence and the weight thereof.

Fourteenth.

The Court erred in overruling the complainant's tenth exception to the Master's report which was as follows: The Complainants except to the Master's report,

Because the master found as the value of complainant's 23 property for rate making purposes $2,167,805, contrary to the evidence and the weight thereof, which evidence if given proper weight, would have led to a value substantially larger than the value found by the master.

Fifteenth.

The Court erred in that portion of its opinion in which it projected the company's earnings for the year which will end on June 30, 1921, but against these earnings off set the company's actual operating expenses and maintenance for the year ending June 30, 1920. That is to say; the Court has found that the present rate will be compensatory because of the forecast as to the earnings for the year which will end June 30, 1921, projecting the earnings shown for the last six months of 1920, but has deducted from these gross earnings in order to arrive at a net earning, the operating expenses for a different period for a year previous. Now the operating and maintenance charges for the last half of 1920, exclusive of valuation expenses, were $217,802.00. If these were projected in the same way that the gross earnings for that period have been projected in the Court's opinion, we would get a total operating expense and maintenance for the year ending June 30, 1921, of $435,604.00. This would leave in round numbers $182,000.00 out of which taxes and depreciation should come and taking depreciation as suggested by the Court and taxes, not including income tax, we would have a balance of only about $100,000.00 for fair return upon a property which the Court finds to be worth $1,500,000.00.

In support of our suggestion that the operating expenses should be projected and that it is not fair to the Company to deduct the operating expenses for a previous year, we would call the Court's attention to the following facts:

(*a*) An analysis of operating expense less maintenance for the periods above referred to, will show:

Operating expenses for year ending June 30, 1920....	314,073.00
For year ending December 31, 1920................	329,412.00
For last half of year 1920..................	171,224.00
324 Projected for year ending June 30, 1921......	342,448.00

These projected expenses for the year to end June 30, 1921, will exceed those for the previous year ending June 30, 1920, by $28,375.00. There is a tangible reason for this increase in operating expenses which will be present during the year ending June 30, 1921, but which did not obtain during the entire year ending June 30, 1920. This increase is due to two causes:

First. On September 1, 1919, the Company increased the wages of its trainmen and practically all other employees, approximately 10%, and again on May 1st, 1920, increased wages another 10%. Each of these increases meant approximately a $20,000.00 per year increase and operating expenses, neither of them being effected for the entire year ending June 30, 1920. The first began in September of that year and the second in May, almost at the end of that year so that the Master's report taking $314,073.00 for operating expenses less maintenance included only 10 months of the first wage increase and less than two months of the second. It will be seen, therefore, that the difference of $28,375.00 between the operating expenses less maintenance for 1920, and the operating expenses less maintenance projected for 1921, will be more than justified by this increased labor cost which will be constant during the year 1921, and which was only present for a portion of the year ending June 30, 1920.

Second. The last half of each year for many years shows greater earnings than the first half, and while the expenses do not by any means increase in the same ratio as the earnings, yet it is true that greater earnings mean larger operating expenses. The average increase in gross earnings of the last six months over the first six for nine years is nearly 14% and the average increase in operating expenses for the last half of the year during the same period, has been 8.2%. The car miles operated in the last six months of the year 1920, multiplied by two, get a twelve months figure greater than the car miles operated during the twelve months ending June 30, 1920. There are certain expenses such as platform labor, wages of trainmen and others that might be enumerated which
325 necessarily increase with the car miles operated so that if it is true that we can expect an increase in earnings in the first half of 1921, these operating expenses of the character just enumerated, must necessarily increase with these earnings. It follows, therefore, that if any test period of gross earnings is taken as a basis for determining the company's net earnings, necessarily the operating expenses and maintenance for the same period must be taken. We submit that the data given in this paragraph shows that after this

had been done, we would show net earnings of a little more than 6% upon the value of the property found by the Court and accepting the depreciation annuity suggested by the Court.

Sixteenth.

The Court erred in that part of its opinion in which $70,000.00 is taken as a fair sum for annual maintenance. We respectfully submit that under the facts disclosed in the record this sum would be inadequate. The year 1918, which the Court cites as a year having exceedingly high index price figures and exceedingly low maintenance expenditures, cannot be taken as a criterion. This was a war year in which nothing was normal and in which the Company was spending just as little as possible upon maintenance. It was a great difficulty that the Company was able to keep enough maintenance employees to operate its cars and power stations and it was necessary to defer a great deal of track and overhead and other maintenance which ordinarily would have been cared for.

For example in 1914, the Company averaged throughout the year over fifty men in its track department, whereas in 1918 the average was only about twelve. This was also true in other departments of the Company. The assumption, therefore, cannot be maintained that during the period of rising prices maintenance expense increased in the same proportion as these price indexed numbers. That might and would be true in 1920, when the Company could get sufficient men to take care of its maintenance, but that it was not true in 1917 and 1918 and part of 1919, is obvious.

We have attached hereto and made a part of this paragraph of our petition for rehearing, a chart showing the relation of the
326 index number of the United States Bureau of Labor statistics
by years to the actual amounts spent by the Company for maintenance, expense in percentages, 1914 maintenance being taken as a normal of 100%, and we ask the Court's consideration of this chart and its disclos-es for the purpose of showing that the required maintenance of the Company at this time is at least $93,000.00 per year, instead of $70,000.00 as suggested by the Court.

C. R. WHARTON,
BALLINGER MILLS,
WM. E. TUCKER,
Counsel for Complainants.

C. R. Wharton of counsel for the complainant, says that the foregoing allegations are within his knowledge and are true, except those stated on information and belief and he verily believes them to be true.
C. R. WHARTON.

Sworn to and subscribed before me this the 11 day of March 1921.
L. C. MASTERSON,
[SEAL.] *Clerk U. S. Dist. Court,*
By J. L. SEXTON,
Deputy.

(Indorsements:) Eq. No. 40. Petition for Rehearing. Galveston Elect. Co. vs. City of Galveston. Filed 11 day of Mch. 1921. L. C. Masterson, Clerk, by J. L. Sexton, Deputy.

327

Order Overruling Motion for Rehearing.

Filed April 27, 1921.

In the District Court of the United States for the Southern District of Texas, at Galveston.

In Equity.

No. 40.

GALVESTON ELECTRIC COMPANY, Complainant,

vs.

CITY OF GALVESTON et al., Defendants.

In above case motion for rehearing is overruled, as per memorandum filed.

J. C. HUTCHESON, JR.,
Judge.

(Indorsements:) Equity No. 40. In the District Court of the United States for the Southern District of Texas at Galveston. Galveston Electric Co. vs. City of Galveston et al. Order overruling Motion for Rehearing. Filed April 27, 1921. L. C. Masterson, Clerk, by G. Predecki, Deputy.

328

Assignments of Error.

Filed June 1, 1921.

In the Supreme Court of the United States.

Between

GALVESTON ELECTRIC COMPANY (Plaintiff), Plaintiff in Error,

and

CITY OF GALVESTON et al. (Defendants), Defendants in Error.

Assignments in Error.

The plaintiff in error—the Galveston Electric Company—says that in the record and proceedings aforesaid, and in the entering of the decree aforesaid by the District Court of the United States for the Southern District of Texas, there is manifest error in this, to-wit:

1. That the Master, having allowed as a part of the base value for rate making purposes of the plaintiff in error's property the sum of $67,078 for brokerage, and the defendants in error having in their second exception excepted thereto, the said Court sustained said exception and thereby excluded from the value of the plaintiff in error's property for rate making purposes the said sum of $67,078. And by reason of the premises the decree entered by the Court based thereon was repugnant to the provisions of the constitution of the United States against depriving any person of property without due process of law.

2. There is also manifest error in this, that the Master, having allowed as a part of the base value for rate making purposes of the plaintiff in error's property the sum of $200,000 for going concern value, and the defendants in error having in their fifth exception excepted thereto, the said Court sustained said exception and thereby excluded from the value of the plaintiff in error's property for rate making purposes the said sum of $200,000. And by reason
329 of the premises the decree entered by the Court based thereon was repugnant to the said provisions of the constitution.

3. There is also manifest error in this, that the Master, having permitted and allowed as a part of operating expenses, the sum of $16,254 paid by the Company for Federal Income Taxes during the year ending June 30, 1920, and defendants in error having in their seventh exception excepted thereto, the said Court sustained said exception and thereby excluded from operating expenses for the year ending June 30, 1920 the said sum of $16,254. And by reason of the premises the decree entered by the Court based thereon was repugnant to the said provisions of the constitution.

4. There is also manifest error in this, that the Master, having found that 4 per cent per annum was a proper allowance for depreciation, applied the same to a present fair value of the Company's depreciable property as found by him, to wit, the sum of $1,670,610, resulting in an annual depreciation allowance of $66,824.00, and the defendants in error having in their sixth exception excepted thereto, the said Court sustained said exception, and instead of applying said 4 per cent allowance for annual depreciation to the fair value of the Company's property as found by the Master, applied it to the sum of $1,131,000, having excluded from the fair value as found by the Master all overheads, and various other items included therein, resulting in an annual depreciation allowance of $45,240 in the place of $66,824.40 allowed by the Master. And by reason of the premises the decree entered by the Court based thereon was repugnant to the said provisions of the constitution.

5. There is also manifest error in this, that evidence having been adduced that at prices prevailing at the time of the hearing it would cost to reproduce the property of the plaintiff in error about 2-1/10 times the prewar cost thereof, and the Master having found such fact to be substantially admitted by both parties on hearing, and evidence having been adduced that commodity prices for a large

number of years will not descend below 60 per cent above the prewar
level, the Master, in determining the present fair value of the
330 plaintiff in error's property appreciated the same only 33-1/3
per cent above its prewar cost, and the plaintiff in error having in its first, second, third, fourth, fifth, sixth and seventh exceptions excepted thereto, the said Court overruled said exceptions and found the present fair value of the plaintiff in error's property by appreciating its prewar cost 33-1/3 per cent, the said finding of the Master and the ruling of the Court being contrary to the evidence and the weight thereof. And by reason of the premises the decree entered by the Court based thereon was repugnant to said provisions of the constitution.

6. There is also manifest error in this, that evidence having been adduced on the hearing that the plaintiff in error spent $80,322 for maintenance of its property during the year ending June 30, 1920, and the Master having found that it had been agreed on the hearing that this amount was so spent, and evidence also having been adduced that based on the history of the company a normal charge for maintenance under present conditions would be $104,000 per year, and evidence also having been adduced that for the year ending December 31, 1920 the Company had expended for maintenance the sum of $90,861, and no evidence in controversion thereof having been adduced, the said Court allowed, in testing the constitutionality of the ordinance, an annual maintenance charge of only $70,000, which action by the Court was contrary to the evidence and the weight thereof. And by reason of the premises the decree entered by the Court based thereon was repugnant to said provisions of the constitution.

7. There is also manifest error in this, that evidence having been adduced that there existed in the street railway property of the plaintiff in error a large amount of deferred maintenance which accrued during the war period, the said Court, in testing the constitutionality of the ordinance, refused to make an allowance for the amortization of such deferred maintenance, notwithstanding the fact that the company had not during the period in which the maintenance was
deferred earned sufficient revenue to take care of the same,
331 whereas the Court should have allowed the plaintiff in error
to earn during a reasonable period in the future sufficient additional revenue to take care of such deferred maintenance. And by reason of the premises the decree entered by said Court based thereon was repugnant to the said provisions of the Constitution.

8. There is also manifest error in this, that the said Court in testing the constitutionality of the ordinance did not take as a test period any period of actual operations of the plaintiff in error's street railway, but on the contrary assumed that the revenues for the year ending June 30, 1921, would be twice the revenues for the six months ending December 31, 1920, and that the operating expenses for the year ending June 30, 1921, would be the same as for the year ending June 30, 1920, contrary to the evidence and the weight

hereof. And by reason of the premises the decree entered by the Court based thereon was repugnant to said provisions of the onstitution.

And the said Galveston Electric Company, plaintiff in error, prays that the decree of the said District Court of the United States for the Southern District of Texas, denying to the plaintiff in error the injunction prayed for in its Bill of Complaint, and dismissing its said Bill of Complaint, on account of the errors aforesaid, may be reversed and annulled, and that a decree may be entered declaring the Ordinance of the city of Galveston, passed on June 5, 1919, entitled, "An Ordinance Fixing the Maximum Rate of Fares to be Charged by the Galveston Electric Company at Five Cents for Each Full Fare and Two and One-half Cents for Each Half Fare" confiscatory and repugnant to the provisions of the constitution of the United States against depriving any person of property without due process of law, and restraining and enjoining the defendants in error from enforcing the same.

C. R. WHARTON,
BALLINGER MILLS,
WILLIAM E. TUCKER,
Counsel for Plaintiff in Error.

(Indorsements:) No. 40. In Equity. Galveston Electric 332 Co. vs. City of Galveston, et al. Assignments of Error. Filed 1st day of June, 1921. L. C. Masterson, Clerk, by G. Predecki, Deputy.

333 *Petition for Appeal and Order Allowing Same.*

Filed June 1, 1921.

In the District Court of the United States for the Southern District of Texas, at Galveston.

In Equity.

No. 40.

GALVESTON ELECTRIC COMPANY

vs.

CITY OF GALVESTON et al.

To the Honorable Joseph C. Hutcheson, Jr., judge of said court:

Now comes Galveston Electric Company, complainant, by Ballinger Mills, its attorney, and feeling itself aggrieved by the final decree of this Court entered on the 11th day of March, 1921, and by the final decree overruling motion for rehearing entered on the 27th day of April, 1921, hereby prays that an appeal may be allowed to it from said decrees to the Supreme Court of the United States, and in connection with this petition, petitioner presents its assignments of error. Petitioner further prays that the amount of security may be fixed by the order allowing this appeal.

BALLINGER MILLS &
C. R. WHARTON,
Attorneys for Complainant.

This appeal allowed and the bond for appeal is fixed at $1,000 00/100.

J. C. HUTCHESON, Jr., *Judge.*

(Indorsements:) Equity No. 40. Galveston Electric Company vs. City of Galveston, et al. Petition for Appeal, and Order Allowing same. Filed 1st day of June, 1921. L. C. Masterson, Clerk, by G. Predecki, Deputy.

334 *Motion and Order Thereon.*

Filed June 1, 1921.

In the United States District Court for the Southern District of Texas, at Galveston.

In Equity.

No. 40.

Galveston Electric Company

vs.

City of Galveston et al.

Motion.

Whereas, in the above entitled case said Galveston Electric Company has appealed from the final decree of said Court to the Supreme Court of the United States; and

Whereas, said Galveston Electric Company has lodged with the Clerk of said Court its condensed statement of evidence; and

Whereas, there is not sufficient time during the present term of Court to settle the same;

Now, therefore, said Galveston Electric Company moves that the said case may be kept open in the June term of said Court for the purpose of settling said condensed statement.

GALVESTON ELECTRIC COMPANY,
By C. R. WHARTON, *Its Attorney.*

5/31/21.

Above motion granted and cause kept open as prayed.

J. C. HUTCHESON, Jr.

(Indorsements:) No. 40. In Equity. Galveston Electric Co. vs. City of Galveston. Motion, and order thereon. Filed 1st day of June, 1921. L. C. Masterson, Clerk, by G. Predecki, Deputy.

335 *Bond on Appeal.*

Filed June 1, 1921.

In Equity.

No. 40.

GALVESTON ELECTRIC COMPANY

vs.

CITY OF GALVESTON et al.

Know all men by these presents, That we, Galveston Electric Company, as principal, and the undersigned as sureties, are held and firmly bound unto the City of Galveston, and H. O. Sappington, mayor of the city of Galveston, and J. C. Purcell, George E. Robinson, John H. Gernand and A. P. Norman, commissioners of the city of Galveston, Defendants, in the full sum of $1,000.00 to be paid said defendants and their attorney, executors, administrators, or assigns; to which payment, well and truly to be made, we bind ourselves, our heirs, executors, and administrators, jointly and severally, by these presents. Sealed with our seals and dated this 31st day of May, in the year of our Lord, 1921, and,

Whereas, lately at a term of the District Court, Southern District of Texas, in a suit depending in said Court between Galveston Electric Company, complainant, and City of Galveston and others aforesaid defendants, a judgment or decree was rendered denying the complainant relief and dismissing its bill, and the said Galveston Electric Company having obtained an appeal to the Supreme Court of the United States to reverse the judgment and decree in the aforesaid suit,

Now, the condition of the above obligation is such, That if the said Galveston Electric Company shall prosecute its appeal to effect, and will answer all damages and costs if it fails to make its plea good, then the above obligation to be void; alse to remain in full force and virtue.

336 GALVESTON ELECTRIC COMPANY,
By BAKER, BOTTS, PARKER & GARWOOD,
By C. R. WHARTON,
Its Attorneys.
[Corporate Seal.] HARTFORD ACCIDENT AND INDEMNITY COMPANY,
Surety.
JAS. P. HOUSTOUN,
Attorney in Fact, Surety.

Sealed and delivered in the presence of

—— ——.

Approved by
J. C. HUTCHESON, Jr.,
Judge.

(Indorsements:) Equity No. 40. Galveston Electric Company, vs. City of Galveston, et al. Bond on Appeal. Filed 1st day of June, 1921. L. C. Masterson, Clerk, by G. Predecki, Deputy.

337 *Application for Extension of Time Within Which to File Record on Appeal and Order Granting Same.*

Filed July 12, 1921.

In the United States District Court, Southern District of Texas.

Galveston Electric Company

vs.

City of Galveston et al.

To the Honorable Joseph C. Hutcheson, Jr., judge of said court:

Comes now the Galveston Electric Company, appellant in this cause which has been appealed to the Supreme Court of the United States, and represents to the Court that the record for the appeal is voluminous and that it will be necessary to get an enlargement of the time within which said record can be filed in the Supreme Court of the United States.

Wherefore, the appellant asks that this time be enlarged as permitted by the rules of the Supreme Court to October 1, 1921.

C. R. WHARTON,
Attorneys for Appellant.

The foregoing application for extension of time allowed as prayed, this the 9th day of July, 1921.

J. C. HUTCHESON, Jr.,
Judge.

(Indorsements:) No. 40, In Equity. Galveston Electric Company vs. City of Galveston, et al. Application for extension of time within which to file record on appeal, and order granting same. Filed July 12, 1921. L. C. Masterson, Clerk, by G. Predecki, Deputy.

338 UNITED STATES OF AMERICA, *ss:*

The President of the United States to City of Galveston and H. O. Sappington, Mayor of the City of Galveston, and J. C. Purcell, George E. Robinson, John H. Gernand, and A. P. Norman, Commissioners of the City of Galveston, and Frank S. Anderson, City Attorney, and McDonald & Wayman, solicitors of record, Greeting:

You are hereby cited and admonished to be and appear at a term of the United States Supreme Court, according to law, within thirty days from the date of this writ, pursuant to an appeal filed in the Clerk's office of the District Court of the United States for the Southern District of Texas, wherein Galveston Electric Company, is Appellant, and City of Galveston and H. O. Sappington, Mayor of the City of Galveston, and J. C. Purcell, George E. Robinson, John H. Gernand and A. P. Norman, Commissioners of the City of Galveston, are Appellees, to show cause, if any there be, why the decree in said appeal mentioned, should not be corrected, and speedy justice should not be done to the parties in that behalf.

Witness, the Honorable William Howard Taft, Chief Justice of the United States, this 29th day of July, A. D. 1921, and of the independence of the United States the 146th year.

[Seal of United States District Court, Southern District of Texas.]

J. C. HUTCHESON, JR.,
United States District Judge.

Service of the within and foregoing citation is hereby accepted and acknowledged by and for the defendants and appellees in said cause and all further notice thereof is hereby waived this 29th day of July, 1921.

FRANK S. ANDERSON,
McDONALD & WEYMAN,
Attorneys for Defendants, Appellees.

[Endorsed:] United States District Court, Southern District of Texas. No. 40, Equity Docket. Galveston Electric Company vs. City of Galveston et al. Citation on Appeal. Issued 29th day of July, 1921. L. C. Masterson, Clerk, by G. Predecki, Deputy. Returned and filed 29th day of July, 1921. L. C. Masterson, Clerk, by G. Predecki, Deputy.

339 *Clerk's Certificate.*

In the District Court of the United States for the Southern District of Texas, at Galveston.

I, L. C. Masterson, Clerk of the District Court of the United States for the Southern District of Texas, in the Fifth Circuit and District aforesaid, do hereby certify the for-going to be a true and correct copy of the record, assignment of errors, and all proceedings in the case, as called for in the Precipe for Transcript, on page 1 of said Transcript, in cause No. 40 on the Equity Docket of said Court, entitled Galveston Electric Company, Plaintiff, vs. City of Galveston and H. O. Sappington, Mayor of the City of Galveston, and J. C. Purcell, George E. Robinson, John H. Gernand and A. P. Norman, Commissioners of the City of Galveston, Defendants, as the same now appears on file and of record in my office.

To certify which, witness my hand and seal of said Court, at Galveston, in said District, this the 29th day of July, A. D. 1921.

[Seal of the United States District Court, Southern District of Texas.]

L. C. MASTERSON,
Clerk U. S. District Court, Southern District of Texas.
By G. PREDECKI,
Deputy.

[Endorsed:] No. 40. In Equity. United States District Court, Southern District of Texas. Galveston Electric Company, Plaintiff, vs. City of Galveston et al., Defendants. Copy of the record, assignment of errors, and all proceedings in the case, as called for in the Precipe for Transcript, on page 1 of said Transcript.

340 *Opinion of the Court.*

Filed Feby. 10, 1921.

In the District Court of the United States for the Southern District of Texas, at Galveston.

In Equity.

No. 40.

GALVESTON ELECTRIC COMPANY, Complainant,

vs.

CITY OF GALVESTON et al., Defendants.

HUTCHESON, *J.*:

This is a rate case arising out of the application by complinant for an injunction to restrain the defendants from enforcing an ordinance fixing the street car fare for adults in the City of Galveston at five cents.

A hearing on the application for temporary injunction was had, and on that hearing the City's contention that there was a franchise ordinance fixing irrevocably a five cent fare was tentatively overruled by me, and an investigation as to the confiscatory character of the rate was entered upon.

On the final hearing, since as the opinion discloses the conclusion was reached by me that the ordinance was not confiscatory, and since a similar question involved in the San Antonio rate case is now before the supreme court of the United States on appeal, I have not thought it necessary to definitely decide the point as to the irrevocable effect of fixing the rate at five cents in the franchise, and this opinion will be addressed only to the exclusive rate features of this controversy.

In this case a Master was appointed in order that the testimony might be adduced at the convenience of the parties, and that its scope and meaning might be, through the arguments of parties and the conclusion of the Master thereon, better grasped by me. This being the nature of this appointment, his findings will not be taken by me as binding, but only as advisory and in aid of a right conclusion.

In view of these facts, and of the well settled principle ap-
341 plicable to suits of this character, that a finding of a Master,
even though confirmed by the district court, is not binding upon the supreme court, it may be unnecessary that the exceptions be specifically disposed of. But since no harm can come from such a course, I shall dispose of the exceptions in order that both my views may be indicated on the precise points raised and that if the exceptions are of legal value to either party, they may have them.

It is undoubtedly true that public utilities state the municipal rate-making bodies, their counsel, and the courts in hearings of this kind realize, in a general way, the basis upon which the adjudication proceeds, but it is also true that there is a marked tendency in these rate controversies to forget the basic principles upon which the decisions rest, and as the frequency and magnitude of these controversies increase, and decision piles on decision, the original foundations of the purely judicial decisions are sometimes lost sight of, and the whole superstructure takes a leaning which would be avoided if the nature of the pillars on which it rests were kept clearly in mind. These foundation pillars, two in number, having been hewn and shaped by the decisions of the supreme court, are broad and enduring, and are a sufficient basis for the whole structure of the law which has been built upon them.

The first is that principle which inheres in sovereignty, "the power to govern men and things," in short, the police powers, in the contemplation of which it was authoritatively declared in Munn vs. Illinois, 94 U. S. 125, that when private property is devoted to a public use, it is subject to public regulation, and that such regulation is not in itself obnoxious to the Fourteenth Amendment.

The second are those provisions of the Fourteenth Amendment which guarantee the equal protection of the laws, and which *inhabit*
the deprivation of property without due process of law. It
342 was with reference to these provisions that the supreme court
said, in Reagan vs. Farmers Loan & Trust Co. 154 U. S. 399:

"The equal protection of the laws which, by the Fourteenth Amendment no state can deny to the individual, forbids legislation, in whatever form it may be enacted, by which the property of one individual is, without compensation, wrested from him for the benefit of another, or of the public,"

and later decisions of that tribunal, dealing specifically with matters of rate legislation and public control have, with clearness and vigor, marked the outlines of the two principles and the respect and authority which must be conceded to each.

I think no utterance of the supreme court upon this view of the matter has been better expressed, or more rigidly adhered to, than that in the case of San Diego Land Co. vs. National City, 174 U. S. 754:

> "That it was competent for the State of California to declare that the use of all water appropriated for sale, rental or distribution should be a public use, and subject to public regulation and control, and that it would confer upon the proper municipal corporation power to fix the rates of compensation to be collected for the use of water supplied to any city, county or town or to the inhabitants thereof, is not disputed, and is not, we think, to be doubted.
>
> It is equally clear that this power could not be exercised arbitrarily and without reference to what was just and reasonable as between the public and those who appropriated water and supplied it for general use; for the State cannot, by any of its agencies, legislative, executive or judicial withhold from the owners of private property just compensation for its use. That would be a deprivation of property without due process of law.
>
> But it should also be remembered that the judiciary ought not to interfere with the collection of rates established under legislative sanction, unless they are so plainly and palpably unreasonable as to make their enforcement equivalent to the taking of property for public use without just compensation, as under all the circumstances, is just both to the owner and to the public; that is, *judicial interference should never occur unless the case presents, clearly and beyond all doubt, such a flagrant attack upon the rights of property under the guise of regulations as to compel the court to say that the rates prescribed will necessarily have the effect to deny just compensation for private property taken for public use.*" (Italics mine.)

This view has not only been reaffirmed in subsequent cases, but has been given direct application in the refusal of the supreme court to consider applications for injunction against municipal rates, unless
the rates complained of shall have had a fair and reasonable
343 trial, the period taken in most cases, being substantially one
year.

In Knoxville vs. Water Co. 212 U. S. 6, the court, in answer to the suggestions that the act of the municipality is not the act of the state, said:

> "It happens that in this particular case it is not an act of the legislature that is attacked, but an ordinance of a municipality. Nevertheless the function of rate making is purely legislative in its character, and that is true whether it is exercised directly by the

legislature itself, or by some subordinate or administrative body to whom the power of fixing rates in detail has been delegated. The completed act derives its authority from the legislature, and must be regarded as an exercise of legislative power. There can at this day be no doubt on the one hand, that the courts on constitutional grounds may exercise the power of refusing to enforce legislation, nor on the other hand, that this power ought to be exercised only in the clearest cases. The constitutional invalidity should be manifest and where that invalidity rests upon disputed questions of fact the invalidating facts must be proved to the satisfaction of the court."

In that same case, page 15, it was said:

"The precise subject of inquiry was, what would be the effect of the ordinance in the future. The operations of the preceding fiscal year or of any other past fiscal year, were valueless if the year were abnormal, and were only of significance so far as they foretold the future. * * * But evidence of the operations of the years succeeding to the ordinance is relevant and of great importance, and by a consideration of such evidence a much greater degree of certainty could be obtained."

Again, in the case of Knoxville vs. Water Co. 212 U. S. p. 16, quoting from Ex Parte Young, 209 U. S. 123:

"No injunction ought to be granted unless in a case reasonably free from doubt. We think such rule is, and will be, followed by all the judges of the Federal courts."

And again, in the same case, quoting from San Diego Land & Town Co. vs. Jasper, 189 U. S. 439, it is said:

"In a case like this we do not feel bound to re-examine and weigh all the evidence, although we have done so, or to proceed according to our independent opinion as to what were proper rates. It is enough if we can not say that it was impossible for a fairminded board to come to the result which was reached.

344 It cannot be doubted that in a clear case of confiscation it is the right and duty of the court to annul the law. As in Covington Turnpike Co. vs. Sanford, 164 U. S. 578, where the rates prescribed would not even pay operating expenses; In Smyth vs. Ames, 169 U. S. 466 where the rates prescribed left substantially nothing over operating expenses and cost of service; and in Ex Parte Young, supra, where, on the aspect of the case which was before the court, it was not disputed that the rates prescribed were in fact, confiscatory.

But the case before us is not a case of this kind * * * The valuation of the property was an estimate and is greatly disputed.

The conclusion of the court below rested upon that most unsatisfactory evidence, the testimony of expert witnesses employed by the parties."

In the Minnesota Rate Case, 230 U. S. 433, it was said:

> The rate making power is a legislative power, and necessarily implies a range of legislative discretion. We do not sit as a board of revision to substitute our judgment for that of a legislature or of the commission lawfully constituted by it, as to matters within the province of either.
>
> The property of of the railroad corporation has been devoted to a public use. There is always the obligation springing from the nature of the business in which it is engaged, that there shall not be an exorbitant charge for the service rendered. But the State has not seen fit to undertake the service itself, and the private property embarked in it is not placed at the mercy of legislative caprice. It rests secure under the constitutional protection which extends not merely to the title, but to the right to receive just compensation for the service given the public.
>
> The general principles which are applicable in a case of this character have been set forth in the decisions:
>
> (1) The basis of calculation is the fair value of the property used for the convenience of the public; Or, as it was put in San Diego Land & Town Co. vs. National City, what the Company is entitled to demand in order that it may have just compensation, is a fair return upon the reasonable value of the property at the time it is being used for the public.
>
> (2) The ascertainment of that value is not controlled by artificial rules. It is not a matter of formulas, but there must be a reasonable judgment having its basis in a proper consideration of all relevant facts.”

These principles are so well established as to require no further elaboration, but their application to a case in hand presents the greatest difficulty.

If in this case the facts which go to make up value were undis-
puted, or could be determined by rule of thumb and with
345 absolute accuracy, there would be no difficulty in determining
the rights of plaintiff and its remedy. But since the vexing
question is the value of the property now being used by the public, and since there is no market value for that property, in the ordinary sense of a free market where commodities or property are passed by purchase and sale, but its value for rate purposes must be determined largely by a fumbling process of unscrambling the elements which have gone into the plant, for the purpose of rescrambling them, and many features of this valuation are determinable only by conjecture, and upon the most unreliable of testimony, it is clear that upon well established principles the burden rests upon the complainant not merely to establish his case by a preponderance of available evidence, but to make his right to relief so clear and plain that there remains no doubt in the mind of the court, that he is so entitled.

The foregoing statement of the attitude of this court toward the question at issue ought to make it plain that a wholly different duty and obligation rests upon the City Council in the matter of establishing rates than that operative here, and it ought to be evident that the failure of this court to inhibit the ordinance as confiscatory is in no sense a judgment that in the opinion of this court, starting with the assumption which the law requires, that the City Council has tried fairly, conscientiously, and in a wholly impartial manner to fix just rates, is not able to declare "that it was impossible for a fairminded board to come to the result which was reached."

Municipal bodies should take with the utmost seriousness and conscientious fair*m*ess their important and authoritative position as bodies of wise and disinterested administrators, and should not force public utilities to apply to the courts for protection, for, as the supreme court has said in the case of San Diego Land Co. vs. National City, 174 U. S.:

> 346 "Such a question is always an embarrassing one to a judicial tribunal, because it is primarily for the determination of the legislature or of some public agency designated by it,"

and it cannot but be a deplorable situation for any community to find itself in if its legislative tribunal is so wanting in courage and fairness as that the rates and practices which its public utilities are allowed to use are only those which fall just short of confiscation.

In the year 1914, while city solicitor of the City of Houston in a brief filed with the City Council in a rate investigation involving the Houston Light & Power Company, I took occasion to say:

> "As this matter stands before the Council, it presents no case for partisan action, but rather for the wise, calm and judicious exercise of a sound and unbiased judgment to bring about the thing desired, which is, the fixing of a rate which will not be too high for the public to pay, but will at the same time not be too low for the public service company to receive."

And further in the brief:

"In Knoxville v. Knoxville Water Co. 212 U. S. p. 12, where the City of Knoxville appealed from a decree enjoining the rates fixed by it, the court says:

'The courts in clear cases ought not to hesitate to arrest the operation of a confiscatory law, but they ought to refrain from interfering in cases of any other kind. Regulation of public service corporations which perform their duty under condition on necessary monopoly will grow in greater and greater frequency as time goes on. It is a delicate and dangerous function and ought to be exercised with a keen sense of justice on the part of the regulating body, and met with frank disclosures on the part of the company to be regulated. The courts ought not to bear the whole burden of saving property from confiscation, though they will not be found wanting where the proof is clear. The legislature and subordinate bodies to whom the legislative power is delegated ought to do their

part. Our social system rests largely on the sanctity of private property, and that State or community which seeks to invade it will soon discover its mistake by the disasters which follow. The advantage to the consumer which he will gain in the reduction in the rates charged by public service corporations is as nothing compared with his share in the ruin which would be brought about by denying to private property its just reward, thus unsettling values and destroying confidence. On the other hand, the companies to be regulated will find it to their lasting interest to furnish
347 freely the information upon which a just regulation can be based.'

The nobility and wisdom of this language cannot be challenged, and both municipal bodies and public service companies owe it to themselves to approach the matter of rate regulation in the spirit of fairness and the desire to do justice thus suggested by the Supreme Court.

It thus appears that this Council acts in the capacity of fairly fixing rates, not as a judge passing sentence upon a culprit, not as a partisan tribunal levying all the tariff can bear, but as a body of wise and disinterested administrators, seeking at the same time to serve the interests of the citizens, the interests of the public, and the interest of the public servant."

The brief concludes with this language:

"It is not amiss for me to say that the Council occupies a somewhat different position from that of a court, in that the council is not required to simply declare its judgment on the evidence before it, but has the right and power, as representing the public, and it should be its aim and purpose not merely to pronounce a legal judgment as to what rate would be short of confiscatory but to arrive at and agree upon a fair rate, though said rate should be considerably in excess of the lowest rates which the courts would sustain and allow.

In other words, if the company exhibits a spirit of fairness and concession, with the view of agreeing upon a fair and reasonable rate, it is clear that the Council is not only authorized, but should endeavor, to meet them in that spirit."

To the litigants and their counsel in this and similar cases before me I commend these expressions, not because of the wisdom of the author but because they bear the sanction of the authority of the supreme court of the United States, adding to them the declaration that if at any time it should appear to me that any order made by me in this or any similar case now or hereafter pending before me is being used by the parties to it for any other purpose and to any other extent than its terms express, in short, if it should appear to me that a City Council, resting upon a court order, has abandoned its legislative function and is refusing to consider from that standpoint such proper adjustment of the rates as the actual experience of the utility shall show it entitled to; or if a utility, where the order is in its favor, is using such order as propaganda in an effort to un-

duly increase its rates, this court will, of its own motion, or upon application of the other party, amend or vacate the order so
348 as to deprive the guilty party of its benefits, and to that end the decree in this and similar cases will be drawn.

Approaching then the consideration of the case at bar in the light of these principles, and with the purpose of determining whether, either upon the admitted facts, or facts if not admitted, yet clearly established, the exercise of sovereignty complained of in this case must be inhibited by this court because, in the language of Justice Harlan "it appears to the court impossible for a fairminded body to come to the result which was reached," I shall proceed to the disposition of the exceptions to the Master's report, and in disposing of them shall make my own findings, so far as I deem them necessary to determine the points at issue, not only in the light of the testimony taken before the Master, but in that furnished by the additional testimony taken by me upon the matter of price levels, operating cost, and operating income for the period ending December 31, 1920.

Cost of Reproduction.

The first exception of the defendants and the first seven exceptions of the complainant are leveled at the Master's act in appreciating the agreed historical reproduction cost of the property by 33⅓% in order to reach a valuation reasonably in line with present day values.

In the submission of the case to the Master the parties agreed that the property ought to have cost on the basis of prices prevailing at the time it and its various units were constructed $1,715,825.

The complainant contended that this value should be appreciated by a sufficient percentage factor to make that agreed value actually conform to the present day value of the plant. The defendants contended that this agreed figure should have been taken as the basis of the value for rate making purposes of the depreciable property, less a reasonable and adequate deduction for accrued depreciation.

349 In these positions the complainant contended for the application of the cost of reproduction theory; the defendants, while admitting the general correctness of such theory, denied its application to the case at bar on the ground that these were unusual times, and such appreciation as existed was abnormal and fugitive, and not a proper basis for rate making.

It was substantially agreed by all the witnesses that the values and costs, as of the time that the Master made the investigation in the summer of 1920, were greatly higher than those employed in the agreement, and much testimony was taken as to price trends and tendencies for the future bearing upon the contention on the one hand, that the present conditions were reasonably normal, and on the other hand, that they were abnormal and fugitive. The estimates of excess percentages over the value taken in the agreed statement ran as high as 110%. The position of defendants' witnesses was that the price trends were rapidly toward a prewar basis;

of the complainant, that those trends would settle to a present price level of about 66% above the basis taken for the agreed figures.

It was the Master's view under all the circumstances, that it ought to be determined by him that 33⅓% was a normal standard for appreciating and agreed values, and this percentage he adopted. Though both complainant and defendants vigorously attacked this finding, I shall confirm it, because I believe that it has been arrived at in the exercise of a "reasonable judgment having its basis in a proper consideration of all relevant facts".

A brief review of the authorities upon this much mooted question of cost of reproduction will, I think, show that the court is not justified in disturbing the Master's finding in this particular.

There can be no doubt that the criterion is the present value of the plant. There can be equally no doubt, on the other hand, that the legislature cannot, in periods of acute depression, reduce rates
on the theory that a valuation of the plant has been fixed
350 thereby, and on the other hand, that it cannot be compelled
to raise rates in periods of enormous and temporary inflation, on the theory that the value of the plant for rate making purposes, has been thereby increased.

In San Diego Town Co. vs. National City, 174 U. S., 757 the court said:

> "The basis of calculation suggested by the appellant is wholly defective in not requiring the real value of the property to be taken into consideration. What the company is entitled to demand in order that it might have just compensation is a fair return upon the reasonable value of the property at the time it was being used by the public. The property may have cost more than it ought to have cost, and its outstanding bonds for money borrowed and which went into the plant may be in excess of the real value of the property."

In The Minnesota Rate Cases, 230 U. S. 449, where the cost of reproduction method was applied by the Master so as to allow to the railroads an immense increase over cost, the court declined to follow the Master, and said:

> "These are the results of endeavoring to apply the cost reproduction method in determining the value of the right of way."

and on page 452:

> "The cost of reproduction method is of service in ascertaining the present value of the plant when it is reasonably applied, and when the cost of reproducing the property may be ascertained with a proper degree of certainty. But it does not justify the acceptance of results which depend upon mere conjecture. It is fundamental that the judicial power to declare legislative action invalid upon constitutional grounds is to be exercised only in clear cases. The constitutional invalidity must be manifest, and if it rests upon disputed questions of fact, the invalidating facts must be proved. And this is true of asserted value as of other facts."

In Lincoln Gas Company vs. Lincoln, 250 U. S. 268, a cause argued on October 5, 1917 and decided June 2, 1919, the court said that the complainant should be authorized to make another application to the court for relief.

> 351 "If it can show, as a result of its practical test of the rate since May 1, 1915, or upon evidence respecting values, costs of operation, and the current rate of return upon capital as they stand at the time of bringing suit, and *are likely to continue thereafter, that the rate ordinance is confiscatory in its effect under the new conditions.* It is a matter of common knowledge that, owing principally to the world war, the cost of labor and supplies of every kind have greatly advanced since the ordinance was adopted, and largely since this cause was last heard in the court below. And it is equally well known that annual returns upon capital and enterprise the world over have materially increased, so that what would have been a proper rate of return for capital invested some years ago furnishes no safe criterion for the present or for the future." (Italics mine.)

Judge Learned Hand, in Consolidated Gas Co. vs. Newton, 267 Fed. 231, announced the principle correctly in this language:

> "It must of course appear that the variations in price are not transitory * * * but once it appears that the new price levels are not transitory, it is no answer to the company's complaint to say that at some future time prices may fall."

It was the view of the Master, and I adopt it, that the prices obtaining at the time of the valuation were transitory, or, to use the language of the supreme court in the Lincoln case it was his view that they were not "likely to continue thereafter." It was his view, and I concur with him, that a price level of about one third above the agreed cost submitted to him could reasonably be assumed to have sufficient permanency to base a finding on.

The supreme court has in 1919 stated that it was a matter of common knowledge that costs of labor and supplies of every kind have greatly advanced. I think it is equally a matter of common knowledge that all of these costs are on the decline, and just as in the last half of 1919 and the first half of 1920 the phenomenon of higher and yet ever higher prices was a worldwide scope and universal experience, now the phenomenon of lowering, and ever lowering prices is equally manifest.

352 In the hearing before me supplementary to that before the Master, the evidence as to price trends was marked. Indices on commodity prices furnished by the Bureau of Labor Statistics showed a decline from September 1920, which were the figures obtainable when the Master made his report, from 250 to 189 on all commodities, with an accelerating drop for each ensuing month, and the testimony sustained this view. Since that time the current financial news of the world, which I think is a matter which this court can take judicial knowledge of, as shown in standard

financial publications, is to the effect that the process of deflation has not been completed. That there are still many channels in which the price reductions recorded are inadequate to meet the requirements for a return to stable conditions. That these reductions are not only coming in materials, but necessarily in the labor which enters into their production, increased and hastened by the great increase in unemployment, the shutting down of plants, and the resumption of such as do resume on wage reductions.

According to the Bankers Commodity Price Index, the average price of all commodities was on the 1st of January 1920 439 30 compared with 358 77 on August 1, 1914, or an increase of approximately only 33 1/3%.

Nothing, however, in any of these views leads me to believe that a permanently lower price level may reasonably be reached for some time to come than the one taken by the Master of 133 1/3%, and his finding on this point will therefore be adopted by me without change.

It follows, therefore, that the first exception of the defendants and exceptions one to seven of complainant inclusive, will be overruled.

353

Brokerage.

The second exception of the defendants is leveled at the allowance by the Master of $67,078 for brokerage.

This exception I sustain. I cannot see that this item stands on any different footing than an interest charge for obtaining money, and it has for a long time been recognized that the interest which complainants pay upon their bonds, or for the securing of money has no part in a rate controversy.

The value of the property in these cases is determined by its cost, either actual or reproduction, and this cost cannot truly be said to be increased or diminished by the rate of interest paid, but such interest charges as are paid must be taken care of annually, and not capitalized on a permanent earning basis. As to this particular plant, under the facts I hold that its brokerage, if it paid any, has or should have been amortized long ago, for as the supreme court said, in the Knoxville Water Company case, speaking of the effort on the part of the company to obtain a higher valuation on account of the depreciated property through failure to make replacements:

> "If however, a company fails to perform this plain duty and to exact sufficient returns to keep the investment unimpaired, whether this is the result of unwarranted dividends upon over issues of securities, or of omission to exact proper prices for the output, the fault is its own. When, therefore, a public regulation of its prices comes under question, the true value of the property then employed for the purpose of earning a return cannot be enhanced by a consideration of the errors in management which have been committed in the past."

If it is sought to include the brokerage on the ground that this is merely an assumed brokerage, upon the theory that in the reproduction it would be necessary to pay the brokerage, the answer to that contention would be twofold:

354 (1) There is no basis for such an assumption here, in view of the actual facts in this case as to the method by which this plant was created through a long period of time, by accretions.

(2) If in any case brokerage is allowable, I incline to the method suggested by the defendants of amortizing it through the period in which the franchise has to run, rather than setting it up as a permanent addition to the capital, making a return on it of eight per cent per annum a perpetual charge against the public.

Grade Raising.

The third exception of the defendants to the Master's allowance of $136,000 expended by the company in grade raising as a part of the general grade raising of the City of Galveston necessitated by the tropical storm, I sustain.

On the oral argument of this case, not correctly apprehending the nature of this allowance, and thinking it occupied the same position as a fill or ordinary embankment, it was my impression that the Master was correct. On reflection, I am certain that it should be disallowed, nor do I think the reasons against it can be better stated than in the language of the complainant in the argument for it:

"If the Galveston Electric Company and its predecessors were to continue to give street railway service, it was absolutely essential that the grade of their tracks should be raised to correspond with the general grade raising project.

The expenditure was therefore a necessary one in order to place the property of the street railway company in such a condition as to continue to serve the public.

"As a matter of fact, it seems clear that the properties of the company were actually increased in value by the amount of the expenditure, because of the fact that the company has thereby in large measure, removed a source of recurring danger to its property, and has thereby put itself in better position to serve the public."

355 These contentions are undoubtedly true just as made, but it follows therefrom not that this item should be allowed, but that it should be disallowed:

(1) Because, if this expense had not been incurred, and the plant of the company were valued with the tracks and properties below the grade, they would have to be valued much less than is now the case, so that in an absolute sense it is true as stated by counsel, that the properties of the company have been actually increased in value by the amount of the expenditure.

This being the case, and due allowance having been made for it in the valuation, to allow it again would be unjust and excessive as a double valuation.

In addition to this reason, it is defeated by two other considerations. The first is, the property having been valued on the reproduction basis, no allowance should be made for grade raising, in view of the fact that since the entire city of Galveston where the tracks run has been raised, the reproduction of the plant would not be attended with this cost; and second, if it be treated as a loss, and if the cost expended on it has not in fact gone into and been allowed in the valuation of the plant, this loss is in reality a storm loss which the public cannot be required to pay earnings on any more than it could be required to pay on the valuation of the buildings demolished by the storm, or cars or personal property wrecked or swept away.

The sustaining of this exception required the disallowance not only of $136,000, but of $6,000 engineers' cost involved in the grade raising project.

The result, therefore, of sustaining the third exception will be that I strike out from the Master's estimate of valuation a total of $142,000.

356 This disposition of the matter of course requires the overruling of complainant's exception No. 8, which is now done.

Depreciation.

The fourth exception of defendants having to do with depreciation, I overrule.

I am of the opinion that the actual depreciation testified to by the engineer Gillett, whose testimony and bearing on the stand has evidently impressed the Master as it impressed this court, most favorably, presents the matter fairly and reasonably, and I shall allow depreciation in the sum which the Master took.

Going Concern.

I sustain the fifth exception of the defendants addressed to the action of the Master in allowing for development cost or going concern value $530,000.

I think it clear that in this particular the Master erroneously followed the practice adopted by some of the State Utility Commissions.

It might well be that a rate making body would be justified in adding something of value to the plant ascertained to compensate it for lean years, and it might also be that in reviewing the action of such a body a court or Master might set up such a basis of valuation for itself, as for instance, a "bare bones" or junk valuation, as that to fairly determine the issue, some addition would have to be made on this score.

In view of the valuation used by the Master in this case, of historical reproduction cost, with an appreciation added for the present day valuations, with all overheads (see table below) properly added and allowed for, taking the City of Galveston as it is, with
357 a street car service already fully developed, and a public de-

manding street car service, and certain to take advantage of it, an allowance for going concern in this case, in addition to allowances already made, as a basis for enjoining the exercise of a legislative *pre*-gative must be discarded.

Table of Overheads.

Engineering and Supervision	$60,000
Law Expense	7,029
Interest during Construction	44,179
Injuries and Damages during Construction	11,492
Taxes during Construction	7,363
Organization and Business Management	73,281
	$203,344

It is very evident that the parties, in making their agreement on value, and the Master in valuing the plant, valued it as a plant in use, and not in any sense as junk, or a dead and idle property. The agreement between the parties showed plainly that they had included everything in the valuation of the property except the franchise value, going concern value in the sense of development cost, bond discount and brokerage, and it is evident that the Master in making his allowance for this item, made it not for the purpose of making a distinction between junk and live, value, but in order to add to his valuation an allowance for development cost somewhat analogous to the procedure earlier adopted by the Wisconsin Public Utilities Commission.

In any case, where a plant is fully valued upon the cost of reproduction basis, the allowance of any element for development cost cannot, in a judicial proceeding, be reasonably sustained, for the reason that such a utility is entitled to a reasonable rate of return upon its plant from the day it goes into operation, and the court does not take into consideration at all that there may be lean years before the fat ones.

Therefore a court in a rate case has nothing to do with any increment to the actual value of the plant acquired by the successful
operation of it, nor in a case of valuation, where the cost of
358 the plant and its historical development is determined, does
the court add anything to its capitalization for rate making purposes for its unsuccessful years, nor deduct anything for its successful ones.

This view has full support in the Minnesota Rate Cases 230 U. S. where the court, on page 454 says:

"It is clear that in ascertaining the present day value we are not limited to the consideration of the amount of the actual investment. If that has been reckless or improvident, losses may be sustained which the community does not underwrite. As the company may not be protected in its actual investment, if the value of the property be plainly less, so the making of a just return for the use of the property invloves the recognition of its fair value, if it be more than its cost. The property is held in private ownership, and it is that property, and not the original cost of it, of which the owner may not be deprived without due process of law. But still it is property employed in a public calling, subject to governmental regulation, and while under the guise of such regulation it may not be confiscated, it is equally true that there is attached to its use the condition that charges to the public shall not be unreasonable. And where the inquiry is as to the fair value of the property, in order to determine the reasonableness of the return allowed by the rate making power, it is not admissable *to attribute to the property owned by the carrier a speculative increment of value, over the amount invested in it, and beyond the value of similar property owned by others, solely by reason of the fact that it is used in the public service. That would be to disregard the essential conditions of the public use and to make the public use destructive of the public right.*" (Italics mine.)

And again, on page 458 it is said:

"It must be remembered that we are concerned with a charge of confiscation of property by the denial of a far return for its use; and to determine the truth of the charge there is sought to be ascertained the present value of the property. *The realization of the benefits of property must always depend in large degree on the ability and sagacity of those who employ it, but the appraisement is of an instrument of public service, as property, not of the skill of the users.*" (Italics mine.)

I have already in this opinion quoted from 212 U. S. the proposition that the present valuation cannot be enhanced by errors
359 or losses in the past. I think it clear, therefore, that if the court, as a basis for inhibiting legislative action should add to the property a purely speculative increment of going concern upon the view that the public, by using the property, had increased its value, it would be doing what the supreme court has forbidden; that is, it would disregard the essential conditions of the public use, and "make the public use destructive of the public right." In short, when "going concern" is stripped of its involvement and obscurity, its attractive names and titles, it presents itself on the one hand where the past record of the utility has been profitable, as nothing more than good will, which the courts have always refused to allow. And on the other hand, where the past record has been unprofitable, as nothing more than an effort to capitalize errors and misfortunes as to the impropriety of which the decisions of the supreme court are equally clear.

The confusion which has resulted in this matter is that which springs from the failure to distinguish the essential principle involved in these rate controversies, that a utility is entitled to earn on its property a fair return, and that the rate to be enjoined can neither be increased on the one hand, by the fact that the company has enjoyed a profitable business, nor decreased on the other hand by the fact that its business has been unprofitable, either because of the lack of support of the utility by the people of the community, or of any other untoward features which would indeed gravely affect the company if its property were valued for the purpose of bargain and sale.

I think this is best illustrated in the case of Denver vs. Denver Union Water Co., 246 U. S., 191, where it was sought to diminish the return to which the company was entitled, by the fact that it was operating without a franchise. The majority of the supreme court denied this contention, saying on page 191:

> 360 "There can be no question of the company's right to adequate compensation for the use of its property employed and necessarily employed, in the public service, nor can it be doubted that the property must be valued as property in use. It involves a practical contradiction of terms to say that property useful and actually used in a public service is not to be estimated as having the value property in use, but is to be reckoned with on the basis of its "junk value." Nor is the question of value for present purposes greatly affected, if at all, by the fact that there is neither right nor obligation to continue the use perpetually, or for any long period that may be defined in advance. The reason is not obscure. The cost and detriment to a property owner attributable to the use of his property by the public, and the value of the service rendered by the property to the public, are measured day by day, month by month, year by year, and are little influenced by the question how long the service is to continue. The cost of the service includes the use of the plant, but ordinarily, not its destruction, except through the slow processes of wear and tear and obsolescence, for which graduated depreciated allowances are made. The whole calculation is a matter of income, not capital, accounting; and the cost and value of the use of a given property for a stated period is the same whether the use is to be continued after the expiration of the period or not."

In short, the real question here is the value of the plant in operation, and this value should be the same for rate making purposes, whether its past history has been successful, or unsuccessful.

I have therefore sustained the exception to this feature of the Master's report, and have myself valued the property as I think, in the light of the evidence, it should be valued, as a complete and going concern, useful and ready to serve the public, with its organization perfect and in shape, and its public ready and waiting to be served.

Rate of Annual Depreciation.

The sixth exception of the defendants challenges the Master's depreciation allowance. This I sustain, for though I approve the rate adopted by the Master, the application of that rate to the value found by me will necessarily produce a different sum for depreciation allowance.

361 Income Tax.

The seventh exception of the defendants goes to the allowance of income tax, and neither counsel have cited me to any decision by the supreme court on this point, and outside of the opinion of Judge Hand, in 367 Fed. supra, I have found no court expression on the subject.

It is therefore, as far as this court is concerned, an open matter, and I am of the opinion that no reasonable theory permits its allowance. Doctrinaires and writers upon tax subjects all agree that the income tax is designed to bear directly upon the subject in such a way as that its incidence cannot be shifted to others In view of the steadily rising complaint against these taxes as in part responsible for higher costs, because their incidence is shifted to the general public, I would be rash, where not compelled to, to undertake to decide whether practically the theory of the doctrinaire works out, but I think it cannot be doubted that it was the purpose of the states in adopting the Amendment to the Constitution, and of Congress in imposing the tax, that the tax should operate directly as a charge against ascertained earnings, and not in any sense to be a direct tax on property, and it was anticipated and supposed that persons subject to it should have their earnings diminished to the extent of this tax.

Counsel on page 47 of their brief say:

"It must be borne in mind in this connection, that the Galveston Electric Company is a public service corporation, and that the Constitution guarantees it a fair return upon the value of its property."

This statement is wholly erroneous, and must have been made without thought. The Constitution makes no guarantee to the complainant, except to protect against legislation which would deprive the company of the right to charge rates adequate to produce a fair rate of return. If counsel's major premise that the Consti-
362 tution guarantees a fixed net fair return were correct, his conclusion is right, but that this proposition is unsound is manifest. Certainly the Constitution does no more than to say to the complainant that the legislature cannot force it to operate at such rates as will deprive it of a return similar to that enjoyed generally by enterprises in that community. The basis of the rate of return is arrived at by analogy to earning of other enterprises in the community, all of which pay on their 8% return an income tax. It certainly cannot be that the courts, in declaring that the right to a fair return could not be abridged, intended to create a more favored class out of public utility concerns, so as to allow them to receive their 8% free of income tax while all other persons in the vicinity who receive the same per cent, have to pay it?

The tenth and last exception of complainant I must necessarily overrule in view of my action on the preceding exceptions.

The revision of the figures of the Master, in the light of the rulings upon the exceptions, produce the following result, which will be taken by me as correct for the decision of this case.

From the agreed historical reproduction cost of the property actually in service of $1,715,825 taken by the Master, since I have disallowed both the items of grade raising and brokerage, deducting $142,281 for grade raising including engineer's cost in connection with it, and allowing nothing for brokerage, I take as the base value of the property $1,573,544.

To the base value of the Master added 33 1/3% of the depreciable items, and in this I have sustained him. Since, however, I also sustained complainant's exception to the Master's failure to appreciate the overhead items which enter into the total cost I determine the amount of appreciation by deducting only $282,000 for the item of working cost, real estate, and additions to the property since 363 January 1, 1915, thus reaching, for my figure for the value of the depreciable items on the basis of historical reproduction cost, $1,291,325.

Appreciating these items as the Master did by 33 1/3% or $430,441, I reach a total of the present day value of depreciable items of $1,721,766. Now restoring to my total the items aggregating $282,000, a figure is reached by me for the undepreciated value of the plant of $2,013,985, a figure very close to that adopted by the Master of $2,167,805.

Deducting from this figure the accrued depreciation used by the Master of $520,000, and declining as I have, to add anything for going concern value, I reach as the value of the plant of complainant, now in the service of the public, the figure of $1,493,985, in lieu of which, since these figures are at best estimates, and even figures are easier to deal with, I take the figure of $1,500,000 as that value of complainant's plant for rate making purposes which in my opinion, the evidence satisfactorily sustains. This value assumed, and the other factors in the rate problem being practically undisputed, the following set up on the record taken before the Master results:

Operating Income		$548,477
Operating expenses allowed by the Master less maintenance	$314,073	
Maintanance (Master's figures)	80,322	
Depreciation allowed 4% on $130,000.......	52,000	
Taxes, excluding income taxes	29,000	
	———	$475,395

Deducting this sum from the operating income will leave a net return of $73,082, a return on the assumed value of $1,500,000 of approximately 5% which return is undoubtedly less than the law regards as fair and requires, nothing else appearing, that the ordinance be enjoined.

It remains to inquire whether the operating expenses and maintenance allowed by the Master were not excessive, and whether the additional evidence adduced before me, covering the period 364 from July 1 to December 31, requires a different conclusion.

I find nothing in the additional evidence as to price trends and changes to cause a change in the figures taken by me for the value of the plant. On the contrary, the additional evidence but confirms my original view that the Master, "in the exercise of a reasonable judgment, having its basis in a consideration of all the relevant facts" correctly arrived at his physical plant value so that the factors in the problem, or depreciation reserve, and rate of return, to which the plant is entitled, will be constant.

However, turning to the matter of, operating return or revenue produced by the ordinance complained of, in the light of the additional evidence, I find for the last six months since June 30, 1920 the property has been producing revenue at the rate of $618,000 per annum as against the return of $548,477 which the Master took as the basis of his report, and it at once becomes evident that unless properly chargeable operating costs and maintenance have increased likewise, or the operating returns for the six months ending December 30, 1921, are no fair criterion for the future the earnings will be adequate to save the ordinance from the confiscation charge leveled against it, for deducting the ascertained total of expenses, including the depreciation allowance, towit, $475,595, used above from the estimated operating total for the fiscal year ending June 30, 1921, we have a net revenue of $142,405, or approximately 9½% of the valuation.

That this increase is not sporadic is evidenced by the fact that the property has been showing a steady increase in earnings, the twelve months ending December 30, 1920 showing a return of $581,418.33 as against $519,034.45 for the previous calendar year.

Turning first to the matter of operating expenses and maintenance set up by the company for the six months' period ending December 31, 1920, we find a claimed six months' operating expense of $205,971, which after deducting $29,500 for valuation expense,
365 produce- on the same basis annually, a total of operating expenses and maintenance of $334,000, or an excess of $40,000 over the figures used by the Master and taken by me in arriving at the assumed net return of $142,405 for the year ending June 30, 1921.

It will be noted that this assumes a maintenance charge of $12,000 in excess of the allowance by the Master, and an operating charge of $28,000 in excess, notwithstanding the fact that as shown by the figures furnished by the company the largest labor and material increases occurred with them in 1918, and notwithstanding the further fact that index figures for 1918, when the maintenance charge was only $40,000, show an average of 196; for 1919 an average of 212, for 1920 an average of 248, and for December 1920 an index figure of 189. In other words, while the maintenance for 1918 was $40,000, in which year, as stated by counsel for complainant and shown by the commodity indices, the rate of increase in the prices of material and labor was most rapid, and the maintenance for that part of 1919 before the rate litigation commenced, was $64,000, the maintenance for that portion of 1919 during which this rate controversy was at issue increased one hundred per cent, with an increase in index figures of only sixteen points, or less than ten per cent, and the increase for 1920 was 136%, with an increase over 1918 index cost of only twenty per cent.

It is plain, therefore, that the explanation of this increased maintenance upon the theory of increases over 1918 labor and material cost, will not do, and the explanation for the continuing increase, in excess of the reasonable addition caused by increase in prices must be found in the fact that during the period of this enormous maintenance the investigation has been underway.

This is emphasized and made more certain by the fact that operating costs once spent are spent, and cannot go into the building and
strengthening of the property, for though they have been sub-
366 ject to exactly the same increases, and in fact, perhaps to
larger increases than maintenance, since maintenance includes both material and labor they have not increased in anything like the same ratio. I am therefore in my opinion not niggardly, but over liberal in allowing to the company for annual maintenance the sum of $70,000, a sum 75% in excess of its normal or average of $43,000 for the past twelve years from 1907 to 1918 inclusive, and more than five per cent of the depreciable value of its property.

As to the operating costs, I think it clear that they are also excessive as a guide to the future, though, as I have stated above, nothing like as much so as was the case with maintenance.

I shall not undertake to fix a definite figure for this operating cost, but find it sufficient, for the purposes of this case, to note by views that no such increased expenses as here estimated will properly occur for the fiscal year ending June 30, 1921, and that there is nothing in the operating and maintenance expense of the company to produce the view that in the light of the actual earnings of the company, this case is so free from doubt as to authorize judicial interference with a legislative act.

I am not unmindful of the suggestion of counsel for complainant, supported by the statement of earnings that the last six months of the year is ordinarily a larger earning period than the first six months, and that a better criterion for test purposes is the experience of a whole year rather than a half year.

To this suggestion it is sufficient to reply that while this is true of operating returns, it is also true of operating expenses, and that while I concur with complainant in the view that a part of the increased earnings for the six months' period ending December 30 is due to the nature of the period under observation, it is undoubtedly true, as shown by the statements submitted by the company, that a larger part of this increase is caused by general, not seasonal,
increased earning power of the company. For, while it is
367 true that the last six months of 1917 produced a greater reve-
nue than the first six months of that same year, it is also true that the first six months of 1918 produced more than the last six months of 1917; that the first six months of 1919 produced more than the last six months of 1918, and that the first six months of 1920 produced within $5,000 as much as the last six months of 1919, so that while it is reasonably certain that the last six months will produce more than the first six months of the same year, it is as

certain that the first six months of the year following will maintain the standard set by the last six months of the year preceding and perhaps do somewhat better. This together with the fact that the operating ratio which has shown an abnormal increase through the years 1917, 1918, 1919 and 1920 will undoubtedly better itself in the coming year, not only through a slacking up in the rise of labor and material costs, but through the greater efficiency of labor, becoming increasingly evident in all lines, will more than counterbalance any error in allowing too large an influence to the six months' experience ending December 30, 1920.

With this view it is not necessary for me to state whether the ordinance will, in my opinion, produce exactly eight per cent, or a little more or a little short of it. It is enough to say that on the whole case I am not satisfied that the ordinance produces a return so plainly inadequate as to justify this court in interfering with the action of the municipality in the exercise of its rate making function, and that the injunction prayed for will be denied upon a decree so drawn as to permit the complainant to again apply as it may be advised, should the actual experience of the future prove the prophecy false, and the municipality be derelict in extending the relief which under the facts, it ought to grant.

(Signed) J. C. HUTCHESON, JR.,
Judge.

368 (Indorsements:) No. 40. Eq. Galveston Electric Co. vs. City of Galveston, et al. Opinion of the Court. Filed Febry. 10, 1921. L. C. Masterson, Clerk.

369 *Clerk's Certificate.*

In the District Court of the United States for the Southern District of Texas, at Galveston.

I, L. C. Masterson, Clerk of the District Court of the United States for the Southern District of Texas, in the Fifth Circuit and District aforesaid, do hereby certify the for-going to be a true and correct copy of Opinion of the Court, filed February 10, 1921, in cause No. 40, on the Equity Docket of said Court, entitled Galveston Electric Company, plaintiff, vs. City of Galveston and H. O. Sappington, Mayor of the City of Galveston, and J. C. Purcell, George E. Robinson, John H. Gernand and A. P. Norman, Commissioners of the City of Galveston, defendants, as the same now appears on file in my office.

To certify which, witness my hand and seal of said Court, at Galveston, in said District, this the 29th day of July, A. D. 1921.

[Seal of United States District Court, Southern District of Texas.]

L. C. MASTERSON,
Clerk U. S. District Court Southern District of Texas,
By G. PREDECKI, *Deputy.*

[Endorsed:] No. 40. In Equity. United States District Court, Southern District of Texas. Galveston Electric Company, plaintiff, vs. City of Galveston et al., defendants. Copy of opinion of the Court, filed February 10, 1921.

370 *Memorandum Opinion on Motion for Rehearing.*

Filed April 27, 1921.

In the District Court of the United States for the Southern District of Texas, at Galveston.

In Equity.

No. 40.

GALVESTON ELECTRIC COMPANY, Complainant,

vs.

CITY OF GALVESTON et al., Defendants.

Complainants have filed a petition for rehearing, seeking to secure a reversal of certain of the positions taken by the court in the former opinion. The matter stressed in the motion are—the court's treatment of the items of Grade-raising, Brokerage, Depreciation, Going Concern Value, Operating Expenses and Maintenance. On these points counsel for the complainant and the City have filed interesting and able briefs.

I have concluded that the motion is well taken on the matter of Grade-raising, and that that item should be allowed.

As to Brokerage and Going Concern Value, I adhere to my former ruling, and as to Annual Depreciation I find, after consulting the briefs of both parties, that I erred in the treatment of it in the main opinion, but that the error was as much against the City as against complainant.

Grade Raising.

In the original opinion in this case I stated:

"On the oral argument of this case, not correctly apprehending the nature of this allowance, and thinking it occupied the position of a fill or ordinary embankment, it was my impression that the Master was correct."

I have returned to the opinion which I entertained on the oral argument, and will allow this item, it having been made to conclusively appear to me that this expense has nowhere been allowed here, nor does it appear in any other place in the valuation

371 of the company's property.

I am also clearly of the opinion that there is nothing in the reproduction theory which, properly applied, requires the disallowance, nor is this in any true sense a case of property lost, demolished or destroyed by storm.

There will therefore be added to the valuation of the property $142,000 heretofore deducted by me on this score.

Going Concern.

Nothing in the briefs or arguments of the parties has caused me in any manner to change my opinion on this point, but while a re-reading of my opinion on this feature leaves me in no doubt or uncertainty as to what was meant thereby, it is evident from the brief of complainant that the views of the court on this score have been misapprehended, since complainant treats the action of the court as a refusal to allow anything for going value. A few words on this score in the light of the agreement of the engineers of the parties may serve to make clear what the court intended to hold.

On October 11, 1920 the two engineers representing the litigants made an agreement in which they stated—

> "The estimated undepreciated cost of reproduction of the railway property of said company on the historical basis, exclusive of franchise value, going concern value (development cost) bond discount and brokerage fee is $1,720,000 as of June 30, 1920. This estimate is made as nearly as possible on the basis of the prices which were in effect at the time of construction of the component elements of the property except for lands and right of way which are estimated at their present value.
>
> The above stated estimate of $1,720,000 includes a total of $202,000 of overhead charges to cover the following items; Engineering and superintendence, law expenses, interest during construction, injuries and damages due to construction work, general expense and organization costs, but exclusive of bond discount and brokerage fee."

The Master in his disposition of the matter, headed his allowance "Development Cost."

The court in the former opinion did not hold that the plant should not be valued differently because of its being a going concern, but on the contrary declared that there should be an allowance made for
that fact. What the court did refuse to allow was the addi-
372 dition made to the plant's value by the Master on the score
of "development cost," it being apparent from their stipulation, that the engineers of the parties, in fixing the value which they did fix, had valued the plant as an operating, going entity, and had merely excluded from it that kind of going concern value which was expressed by the terms which they placed in parenthesis for definition, "development cost."

Depreciation.

In this matter it is plain, from the briefs of both sides, that the court has fallen into errors both mathematical and otherwise, the first of which was in the failure, through oversight, to add to the depreciable items the $131,000 of depreciable property which have been added to the system since 1914.

This amount should of course have been added to the total of the depreciables for the purpose of arriving at the annual amount.

In addition to this oversight, the court has erred in figuring the overheads into the amount on which the annual rate of depreciation should be allowed.

The Master, in appreciating the historical reproduction cost by 33 1/3% declined to allow any appreciation upon the overhead items other than engineering cost.

This action was excepted to by complainants, and not only was this exception by the court sustained, but when the value of the depreciables was set up for the purpose of arriving at the proper amount as depreciable annuity, the sum of the overheads was added in.

In its reply brief to the petition for rehearing the City vigorously attacks the action of the court as erroneous in both these particulars, and I have reached the conclusion that its position in part is well taken.

I still adhere to the original views expressed, that in appreciating the property the amount of the overhead items should also be appreciated, but I think it entirely clear that the sum of the 373 overheads should not appear at all in the depreciable property on which an annuity rate is figured. That the paradox involved in this statement is apparent and not real will, I think, appear upon the slightest reflection.

The record shows that the overheads, such as interest during construction, engineering, law expenses etc. were arrived at by the parties by taking a certain percentage upon the estimated cost of the physical properties. It must necessarily follow, then, that if the physical properties entering into the cost of the property are appreciated, the overhead items will be correspondingly increased, as the necessary result of applying the same percentage figures to the increased amount of money involved. Or, putting it otherwise for the purpose of this calculation the synthetic process is employed, and the overheads are not treated as distinct items, but as parts of a complete whole, and while I do not find that the items of overhead, such as interest during construction, have appreciated in cost, or that viewed as items apart from the physical property there should be any appreciation applied to them, I do find, that when the base which is used to find the amount of these items by the application of percentage is increased, the sum of these items must necessarily itself increase.

On the other hand, when the matter of establishing the depreciation annuity is considered, the analytic process is employed, and the sum total of the value of the plant is resolved into its constituent items so as to select those items making up the whole which are susceptible to depreciation.

Under the influence of this process it is clear that the overhead items must be discarded in arriving at the annual depreciation allowance.

That this disposition is sound as to such items as interest during construction, organization expense, law expense etc. admits of no doubt, because under no kind of theory could they be supposed to be
subject to depreciation, and what doubt might arise with
374 reference to the propriety of including engineering charges
in these figures is at once dissipated when it is considered
that the property will not be constructed again as an entirety, but is to be kept up by annual renewals from time to time made, so that engineering, and other such overheads caused by the assembling of the plant will not have to be provided against, because they will not be again incurred.

In short, while if the object of the depreciation annuity were to provide a fund sufficient at the end of a period of years to replace the plant as an entirety, the percentage ought to be figured on the entire cost of the plant, including the overheads necessarily incurred in assembling it. Since the object is otherwise, and merely contemplates the provision of a fund out of which annual renewals and replacements can be made, none of these items ought to be considered in arriving at the annuity rate, for the same organization which runs the plant, the expense of which is provided for in the annual operating expenses, looks after, provides for, and takes care of the renewals.

The result of these views requires the complete rejection by the court of the figure of $1,300,000.00 taken in the original opinion as the basis for the 4% depreciation annuity and the substitution therefor of the correct figure, $1,000,000.00 which is arrived at in accordance with these views, to which must be added $131,000 of new physical items overlooked by the court in the former opinion, making a total figure for the basis of depreciation allowance of $1,131,000.00.

Maintenance.

In the original opinion the excessive increases in maintenance over the year 1918 were disallowed by the court, and it was stated that an allowance of $70,000 on that score would be liberal.

The arguments on the motion for rehearing have not changed but have confirmed that view.

While the data before the court did not permit of the
375 absolute deduction, the court was of the opinion that the ex-
cessive advances in maintenance were explained by the fact
that maintenance had been confused with depreciation or replacement account, and that the shadowy difference between depreciation and maintenance which exists in some classes of expenditure had disappeared, with the result that the company was charging to maintenance items which ought to have been taken care of in replacement or depreciation account.

I was led to this conclusion by the fact that while maintenance costs were mounting higher and higher, the operating costs did not correspondingly increase.

Counsel for complainant lay the difficulty at the door of what they call "deferred maintenance," and claim that unless they are now allowed a sufficient return to take care of this deferred maintenance, it must come out of the stockholders, which they claim is unjust.

To this position the answer suggests itself, that as to maintenance and depreciation, in paraphrase of John Dryden it may be said "Maintenance is sure to depreciation near allied, and thin partition walls their bounds divide," and that if this maintenance has been deferred as much and as long as they claim, it has by this time become depreciation, and the total of the sums of deferred maintenance might with propriety be substracted from the valuation of the property, because the money represented in those figures is either in the property or is not in it, and this valuation has assumed that the company's property was in proper repair.

I am inclined, however, to the view that the disposition of this item by deducting these sums from the capital value would not be accurate or just, and that the proper disposition of it is to treat it as what the company in fact claims it is, deferred maintenance, at least until such time as the company has had an opportunity to restore the property to its proper operative condition, by putting into it the "deferred" maintenance called for by their own figures.

Upon no view of it should the public be required to pay 376 such rates as would permit the company, at the public's expense, to reestablish its property in the condition it ought to have been maintained in. The language of the Supreme Court in the Knoxville Water Company case has application here:

> "If however, a company fails to perform this plain duty and to exact sufficient returns to keep the investment unimpaired, whether this is the result of unwarranted dividends upon over issues of securities, or of omission to exact proper prices for the output, the fault is its own."

for there can be no difference between the effort to increase the value of the property through a recital of past failures to make replacements, and the effort to increase the rate of return in order to put back into the treasury moneys to take care of deferred maintenance. I am convinced, therefore, that whether this excess maintenance is due to confusing maintenance with replacement cost, or to a condition of "deferred maintenance" the so-called "actual" maintenance expenditure cannot be allowed in determining whether the rate is confiscatory, but there should be taken an annual sum arrived at upon a consideration of all the factors which enter into the problem in the light of the history of the company, and in that light I have allowed $70,000, which seems to me to be at present ample, and which, if prices continue to fall, will soon become itself excessive.

Conclusion.

The effect of the altered views as above expressed requires the court to add to the actual figures, $1,483,780, or the first opinion, which a re-checking of my calculations shows me is correct, $142,281 deducted for grade raising, giving a figure for the rate basis of $1,626,061, instead of $1,500,000 as used in the former opinion.

It also requires that instead of $1,300,000 taken in the former opinion as the value of the depreciables there be taken for the basis of the depreciable annuity, $1,131,000.

Neither these changes, however, nor any other matters called to my attention in connection with the motion for re-hearing require
a change of view as to the disposition of the case, and the
377 motion for re-hearing will, therefore, except as otherwise in-
dicated herein, be overruled.

J. C. HUTCHESON, Jr., *Judge.*

(Endorsements:) Equity No. 40. In the District Court of the United States for the Southern District of Texas At Galveston. Galveston Electric Co. vs. City of Galveston et al. Memorandum Opinion on Motion for Re-hearing. Filed April 27, 1921. L. C. Masterson, Clerk, by G. Predecki, Deputy.

378 *Clerk's Certificate.*

In the District Court of the United States for the Southern District of Texas, At Galveston.

I, L. C. Masterson, Clerk of the District Court of the United States for the Southern District of Texas, in the Fifth Circuit and District aforesaid, do hereby certify the foregoing to be a true and correct copy of Memorandum Opinion on Motion for Re-hearing, filed April 27, 1921, in cause No. 40, on the Equity Docket of said Court, entitled Galveston Electric Company, Complainant, vs. City of Galveston, et al., Defendants, as the same now appears on file in my office.

To certify which, witness my hand and seal of said Court, at Galveston, in said District, this the 29th day of July, A. D. 1921.

[Seal of United States District Court, Southern District of Texas.]

L. C. MASTERSON,
Clerk U. S. District Court, Southern District of Texas,
By G. PREDECKI,
Deputy.

[Endorsed:] No. 40. In Equity. United States District Court Southern District of Texas. Galveston Electric Company, Complainant, vs. City of Galveston, et al., Defendants. Copy of Memorandum Opinion on Motion for Re-hearing, filed April 27, 1921.

Endorsed on cover: File No. 28,410. S. Texas D. C. U. S. Term No. 455. Galveston Electric Company, appellant, vs. City of Galveston, O. H. Sappington, mayor of the city of Galveston; J. C. Purcell et al., commissioners, &c. Filed August 8th, 1921. File No. 28,410.

NOV 10 1921
WM. R. STANSB
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IN THE

Supreme Court of the United States

October Term, 1921

No. 455

GALVESTON ELECTRIC COMPANY,
Appellant

vs.

CITY OF GALVESTON, ET AL.,
Appellees

On Appeal from the District Court for the Southern District of Texas.

BRIEF FOR GALVESTON ELECTRIC COMPANY, APPELLANT

William E. Tucker,
Solicitor for the Galveston Electric Company, appellant.

PRESS OF GEO. H. DEAN, BOSTON

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IN THE

Supreme Court of the United States

October Term, 1921

No. 455

GALVESTON ELECTRIC COMPANY, *Appellant* *vs.* CITY OF GALVESTON, ET AL., *Appellees*	On Appeal from the District Court for the Southern District of Texas.

BRIEF FOR GALVESTON ELECTRIC COMPANY, APPELLANT

STATEMENT OF FACTS

In this brief, for convenience, the appellant will be referred to as the plaintiff and the appellees as the defendants.

For many years prior to October 1, 1918, the plaintiff charged for the transportation of adults upon its cars a five cent fare, and, as required by the Statutes of the State of Texas, for certain students and children, half fares.

On September 19, 1918, the Board of Commissioners of the City of Galveston passed an ordinance authorizing and permitting the plaintiff to increase its adult fares to six cents and its half fares to three cents. This ordinance by its terms took effect October 1, 1918, and from that date to June 5, 1919, the plaintiff, as permitted by said ordinance, charged and received the fares mentioned.

On June 5, 1919, the Board of Commissioners of the City of Galveston passed an ordinance reducing the fares of the plaintiff to five cents for full fare and two and one-half cents for half fare. This ordinance by its terms took effect immediately upon its passage. Upon the said date of the passage of said ordinance, namely, June 5, 1919, the plaintiff, in compliance with said ordinance, reduced its fares from the six cents full fare and three cents half fare allowed by the ordinance of September 19, 1918, to five cents full fare and two and one-half cents half fare, and has continued in force such latter fares down to and including the present.

After trying out through actual operation of its system the five cents full fare and two and one-half cents half fare prescribed by the ordinance of June 5, 1919 above referred to, for nearly a year, the plaintiff, on May 8, 1920, filed its petition in this case in the District Court for the Southern District of Texas, alleging that the ordinance of June 5, 1919, fixing its maximum fares at five cents full fare and two and one-half cents half fare, was a violation of its constitutional rights as being in contravention of the provisions of the Fourteenth Amendment respecting the taking of property without due process of law, and praying for both a preliminary and a permanent injunction against the enforcement of the provisions of said ordinance.

The plaintiff operates in the City of Galveston an electric light and power plant as well as a street railway, and largely owing to the difficulty of setting up in the hearing for the preliminary injunction a proper basis for the segregation of its property and earnings, the Court refused to issue a preliminary injunction. Also at the conclusion of the hearings, the Court dismissed the petition, so that no injunction has ever been issued in the case, and the five cents full fare and two and one-half cents half fare specified in the ordinance has been in force as above stated since the date upon which it took effect, namely, June 5, 1919.

The District Court appointed as a Special Master to hear the evidence and report the same to the Court with his recommendation, Henry J. Dannenbaum, formerly a judge of the District Court of the State of Texas. The Court did not hear directly any evidence except that of one witness for about one-half an hour on one day and such evidence had to do only with the matter of the current trend of commodity prices. All the rest of the evidence was heard by the Master alone.

At the time of the hearings before the Master, the fares complained of had been in force on the Company's system of street railway for a period of more than sixteen months. The period for testing the constitutionality of the ordinance in the hearings before the Master was taken by both sides to be the twelve months ending June 30, 1920, during all of which year the plaintiff had been charging the fares complained of. The case came before the Master, therefore, and comes before this Court, on a test in actual operation of the fares complained of.

The hearings before the Master were very much simplified owing to the fact that evidence of the base value of the street railway properties of the plaintiff segregated from its electric light and power properties was made unnecessary by agreements between engineers representing the plaintiff and the defendants, made before the commencement of the hearings, introduced in evidence therein, and accepted by the parties as binding upon them.

These agreements covered two things: *First,* the "undepreciated record cost of the railway property of the Galveston Electric Company from 1881 to June 30, 1920 inclusive;" and *Second,* the "estimated undepreciated cost of reproduction of railway property of said Company on the historical basis."

By these agreements it appeared that the so-called undepreciated record cost of the railway properties of the Company "exclusive of franchise value, working cash, materials and supplies, going concern value (development cost)" was $2,100,537 (Record p. 135).

From the other agreement, similarly made and introduced, it appeared that the estimated undepreciated cost of reproduction of the railway property of the plaintiff on the historical basis "exclusive of franchise value, going concern value (development cost), bond discount and brokerage fee" was $1,720,000, as of June 30, 1920 (Record pp. 135, 136). It appears from this agreement that this estimate was made as nearly as possible upon the basis of prices which were in effect at the time of the construction of the component elements of the property, except for real estate and rights of way which were estimated at their present value (Record, pp. 135, 136); and it also appears that included in the estimated value of $1,720,000 were $202,000 of overhead charges, covering engineering and superintendence, law expenses, interest during construction, injuries and damages due to construction work, general expense and organization cost (Record p. 136). There was also included therein $4,175 of property not at the time of hearing used in the public service, which the plaintiff agreed on the hearing should for that reason be eliminated from the value.

In addition to these agreements respecting values, the plaintiff introduced an estimate of the cost of reproducing the street railway properties of the plaintiff at prices for material and labor existing on June 30, 1920. This showed the estimated cost of the property of the plaintiff on this basis to be $3,472,094 undepreciated and exclusive of going concern value (Record p. 140); and the same value depreciated but exclusive of going concern value to be $2,636,858 (Record, p. 140).

While the engineer for the defendants did not price out an inventory at prices prevailing for labor and materials on June 30, 1920, he did testify that present prices are approximately 2.1 times 1914 prices, and that general construction materials, such as were used in this plant, have increased in price some 112 per cent. since 1914 (Record, p. 127). Accordingly, if he had priced out the inventory at present prices, he would have arrived at approximately the same result as the engineer for the plaintiff did.

The case comes before this Court, therefore, on a practical agreement between the parties as to the basic figures to be used in the determination of value. The plaintiff did not, either before the Master or Court, contend for a value for rate making purposes which would be arrived at by applying to the inventories the prices existing at that time. On the contrary, evidence was introduced by the plaintiff that commodity prices had fallen somewhat from their peak in May, 1920, and through Halbert P. Gillette, introduced in evidence a careful and thorough study and analysis of the price determining factors and a determination by Mr. Gillette of the probable plateau of prices in the future. Mr. Gillette's evidence on this point is fully set forth in the Record, pp. 79 to 91. His conclusion was that prices were likely to fall from their peak to about 1.6 to 1.7 times 1914 prices, and that from that point on prices were to remain at that plateau, except for a very gradual downward tendency at a rate not exceeding three or four per cent. a year. The plaintiff contended that this probable plateau of prices should be applied to the historical reproduction value agreed upon as above stated, in determining a value for rate making for the purposes of this case. This contention by the plaintiff was met by a contention of the defendants that the actual *historical* reproduction cost be taken as the value for rate making purposes, with no appreciation over cost for the existing high prices of labor and materials.

The Master, after excluding from the agreed historical reproduction value all items which he believed would not be subject to appreciation on account of the rise in prices since the war began, such as working cash, materials and supplies, real estate and right of way, grade raising, construction overheads, and additions made to the property since January 1, 1915, which were included on the historical basis at the higher prices prevailing when the same were purchased (a total of excluded items of $628,195), appreciated the balance of the property of the plaintiff by applying thereto a factor of increase of 33 1/3 per cent. The items which were excluded in the computation as above stated were then again added, and resulted in a finding by the Master of an undepreciated value of the physical property of the plaintiff of $2,167,805 (Record p. 188).

The Master then made a determination of the accrued depreciation in the property. He found that such depreciation in the property amounted to $390,000. Since he had appreciated the remaining property, he likewise appreciated by 33 1/3 per cent. the accrued depreciation thus found, resulting in an accrued depreciation to be deducted from his value of physical property of $520,000. As will be hereinafter explained, the Master then made a determination of going concern value and found it to equal in amount the amount of this accrued depreciation, namely $520,000, and accordingly he treated the accrued depreciation determined by him as aforesaid and the going concern value as offsetting one another, and arrived at a present fair value of the physical property of the plaintiff for the purposes of this case of $2,167,805 (Record p. 188).

The method which the Master used of appreciating the items believed by him to be appreciable on account of the rise in prices since the war to the extent of 33 1/3 per cent. thereof, was the subject of exceptions by both parties, but was substantially sustained by the Court in its opinion.

Evidence on behalf of the plaintiff was submitted on the hearings before the Master with reference to the amount which should be added to the base values for going concern value. As above noted, the agreement of the engineers specifically excluded any allowance for going concern value. The witness Gillette, above mentioned, made several studies for the purpose of arriving at a basis for estimating going concern value. The studies had as their object the determination of the cost incurred by the Company in building up its business. The cost so incurred as determined by Mr. Gillette ranged all the way from $1,710,300 down to $575,300, depending upon the method used in the computation respecting the period covered by the study, the base values used therein, and the inclusion or exclusion of income taxes in operating expenses and the purpose for which it was to be used (Record p. 149).

The expert witness for the defendants, Mr. Elrod, also introduced a development cost study which showed a development cost of $2,280,816 (Record pp. 125, 171), while defendants' witness Gallaway introduced a development cost study on a different basis which showed a development cost, after he had corrected certain admitted mistakes of method made therein, of $212,452 (Record p. 131).

The Master, upon consideration of this evidence on going concern value, by the use of his own judgment applied to such a situation, determined the going concern value or development cost to be $533,333, but, as above stated, he treats it as being offset in the value by the accrued depreciation determined to be $520,000, so that this latter amount is the actual allowance for going concern value (Record p. 189). This item of value was the basis of an exception by the defendants and was entirely excluded by the Court (Record pp. 122 to 125 inclusive, p. 232).

The agreement as to the cost of reproduction of the properties of the plaintiff on the historical reproduction basis above mentioned, used by the Master in determining the rate base, by its terms specifically excluded bond discount and brokerage fees. The plaintiff made no contention for the addition of any amount to the value by reason of bond discounts, but did contend for an addition to the value of a sum covering brokerage fees as distinguished from bond discount; in other words, for the cost of procuring the money necessary to build the plant separate and apart from the discount from the face value at which the securities were sold to the public. The plaintiff introduced evidence that such brokerage fee would be $67,078 (Record p. 160). The defendants without attacking the amount, contended that this should not be included in value. The Master allowed the amount (Record p. 187). The defendants excepted to such allowance and the Court disallowed it (Record p. 221).

There was evidence before the Master that the plaintiff had paid, during the year ending June 30, 1920, about $8000 on account of Federal Income Taxes. In making a financial set-up in order to apply the constitutional test for the test period, namely, the twelve months ending June 30, 1920, the Master included in operating expenses the amount paid as Federal Income Taxes during such year (Record p. 190). This action of the Master in so including this amount in operating expenses was the basis of an exception by the defendants, and such exception was sustained by the Court and the amount was excluded (Record p. 226).

There was practically an agreement on the evidence of both parties respecting the proper percentage to be allowed per annum (namely 4%) for depreciation to be deducted from earnings before arriving at the net earnings of the plaintiff applicable to the payment of return. In determining the actual amount of such deduction for the test period, the Master applied the percentage to the present fair value of the Company's *depreciable* property as found by him, namely, the sum of $1,670,610, resulting in an annual depreciation allowance of $66,824.40 (Record p. 190). The defendants excepted to this allowance and the Court sustained said exception and in determining the specific amount to be allowed from earnings for this period, instead of applying said 4 per cent. to the fair value of the plaintiff's depreciable property as found by the Master, applied the percentage to $1,131,000, having excluded from the fair value of the depreciable property in applying the percentage all overheads and various other items included therein, resulting in an annual depreciation allowance of only $45,245, instead of the $66,824.40 allowed by the Master (Record p. 234).

The evidence of both the plaintiff and the defendants showed that the plaintiff spent for maintenance during the year ending June 30, 1920, the sum of $80,322. It also appeared in evidence that for the year ending December 31, 1920, the plaintiff expended for maintenance the sum of $90,861. No evidence attacking the amount thus spent or the purposes for which it was spent was introduced, but the Court, in testing the constitutionality of the ordinance, allowed for an annual maintenance charge only $70,000 (Record pp. 229, 234).

There was also evidence indicating that during the war period a large amount of maintenance had been deferred. The Court, however, refused, in testing the constitutionality of the ordinance, to make any allowance for this deferred maintenance (Record p. 235).

As above stated, the test period used in the hearings before the Master was the twelve months ending June 30, 1920. Before the case was decided by the Court, another full six months' period was available, and accordingly evidence was introduced before the judge after the filing of the Master's report as to the gross revenue and operating expenses for the year ending December 31, 1920. The Court, in testing the ordinance, refused to confine itself either to the twelve months ending June 30, 1920, or to the twelve months ending December 31, 1920, but on the contrary, finding that the showing of the Company for the six months' period from June 30, 1920, to December 31, 1920, was an improvement over the first six months of that year, based its determination of constitutionality on a projected year ending June 30, 1921, and for such projected year took as the gross earnings two times the gross earnings of the six months ending December 31, 1920, and took as the amount of expenses for such projected year those for the year ending June 30, 1920. The evidence shows that the street railway business in Galveston is seasonal, and that the greatest business of the year is done in the last half of the year, including most of the summer months, when the traffic to the Galveston Beach, a popular summer pleasure resort, is greatest, and including the heavy Thanksgiving and Christmas traffic (Record pp. 172, 173). The plaintiff contended to the Court that in view of this seasonal traffic being heaviest in the last six months of the year, it was extremely unfair to it to take as a test period an estimate so arrived at for the year ending June 30, 1921, instead of an actual test period under actual operating conditions, and particularly unfair to use such a test period and use as the gross earnings therefor an amount equal to twice the gross earnings for the last six months of the year 1920, and the operating expenses of the year ending June 30, 1920. Despite such objections, however, the Court refused to confine itself to the actual figures, and used the estimated figures above mentioned (Record p. 228).

A clearer idea of the effect of the points in respect of which the lower Court disagreed with the Master can perhaps best be obtained from a tabulation of the financial set-ups on the various bases for the actual test periods in question. Such a tabulation has been made up and is inserted in this brief between pages 12 and 13. It gives at a glance the respective values of the Court and the Master, and the effect in the operations of the plaintiff of the respective methods of determining the net earnings available for return; and since the tabulation has been made comprehensive, it would seem to speak for itself and need no further explanation.

In considering the results obtained it should be borne in mind that it was substantially admitted in the hearings both before the Master and the Court that the plaintiff was entitled to earn a fair return, on the present fair value of its property, of 8 per cent. In fact, the Master finds this rate of fair return *to be admitted by the defendants* (Record p. 190) and no contention was made at any time, either before the Master or the Court, for any less amount. A summary of the evidence on which this finding of the Master was based is given in the Conclusion of this brief, and it is submitted that such evidence made the finding of the Master as to the fair rate of return, a necessary one.

	TEST PERIOD — 12 MONTHS ENDING JUNE 30, 1920				TEST PERIOD — 12 MONTHS DECEMBER 31, 1920		
	MASTER		COURT		On same basis used by MASTER		On sa
Present Fair Value of Plaintiff's Property	$2,167,805.66		$1,626,061.00		$2,167,805.66		$1
Gross Revenue . .		$548,477.00		$548,477.00		$581,418.83	
Operating Expenses less maintenance .	$314,073.00		$314,073.00		$329,411.61		$329,41
Maintenance . . .	80,322.00		70,000.00		90,861.28		70,0
Depreciation Allowance	66,824.40		45,245.00		66,824.40		45,2
Taxes	37,008.00	498,227.40	29,000.00	458,318.00	35,475.30	522,572.59	27,4
Net Earnings Available for Return .		$50,249.60 Equals Return on Master's Valuation of $2,167,805.66 of 2.32%		$90,159.00 Equals Return on Court's Valuation of $1,626,061.00 of 5.5%		$58,846.24 Equals Return on Master's Valuation of $2,167,805.66 of 2.7%	

— 12 MONTHS ENDING MBER 31, 1920			TEST PERIOD — 12 MONTHS ENDING DECEMBER 31, 1920			
by	On same basis used by COURT		Using *Actual Maintenance* instead of Arbitrary $70,000 used by Court, and all other figures used by Court			
	$1,626,061.00					
8.83		$581,418.83	Gross Revenue		$581,418.83	
	$329,411.61		Operating Expenses less maintenance .	$329,411.61		
	70,000.00		Maintenance (Actual)	90,861.28		
	45,245.00		Depreciation Allowance (Court's) . . .	45,245.00		
2.59	27,475.30	472,131.91	Taxes (excluding income taxes) . . .	27,475.30	492,993.19	
5.24 ls aster's of 5.66 of		$109,286.92 Equals Return on Court's Valuation of $1,626,061.00 of 6.7%	Net Earnings Available for Return . .	Equals Return on Master's Valuation of $2,167,805.66 of 4%	$88,425.64	Equals Return on Court's Valuation of $1,626,061.00 of 5.4%

Using in the above set-up the	Master's Value	Court's Value
	$2,167,805.66	$1,626,061.00
A. Master's depreciation instead of Court's ***with no other change*** would reduce the net return by $21,579.40 to $66,846.24 which constitutes a net return of	3.1%	4.1%
B. Including in the above set-up income taxes in the items excluded from earnings ***with no other change*** would reduce the net return by $8,000 to $80,425.64 which constitutes a net return of	3.7%	4.9%
C. Making in the above set-up ***both changes*** A. and B. above would reduce the net return by $29,579.40 to $58,846.24 which constitutes a net return of	2.7%	3.6%

THE ASSIGNMENTS OF ERROR AND THE ISSUES.

The Galveston Electric Company makes eight assignments of error (Record pp. 202 to 205, inclusive), which assignments of error may be briefly stated as follows:

First assignment. The action of the Court in disallowing as a part of the base value for rate making purposes the sum of $67,078 allowed by the Master as a brokerage fee. This allowance by the Master was excepted to by the defendants in their second exception (Record p. 193), and said exception was sustained by the Court.

Second assignment. Refusal of the Court to allow as a part of the base value for rate making purposes the sum of $520,000 found by the Master to be the amount of going concern value. This finding of the Master was the subject of the defendants' fifth exception (Record p. 194), and this exception was sustained by the Court.

Third assignment. Refusal of the Court to allow as a part of operating expenses about $8000 paid by the plaintiff for Federal Income Taxes during the year ending June 30, 1920. This amount was allowed by the Master, was made the subject of the defendants' seventh exception (Record p. 194), and this exception was sustained by the Court.

Fourth assignment. It having been substantially agreed that 4 per cent. per annum was a proper annual allowance for depreciation to be deducted before determining the net earnings of the plaintiff applicable to the payment of return, the Master applied such percentage to the present fair value of the Company's depreciable property as found by him, namely, the sum of

$1,670,610, resulting in an annual depreciation allowance of $66,824.40. This allowance by the Master was the subject of the sixth exception of the defendants (Record p. 194). The Court sustained said exception, and instead of applying the 4 per cent. depreciation allowance to the present value of the plaintiff's property, applied it to the sum of $1,131,000, having excluded from the fair value as found by the Master all overheads and various other items contained therein, resulting in an annual depreciation allowance of $45,240, in the place of $66,824.40.

Fifth assignment. The evidence of both parties was to the effect that it would cost to reproduce the property of the plaintiff about 2.1 times the original cost thereof, and the Master found such fact to be substantially admitted by both parties on the hearing (Record p. 187). The plaintiff also introduced evidence that commodity prices for a large number of years to come will not descend much below 60 to 70 per cent. above the pre-war level. The Master, in determining the present fair value of the plaintiff's property, appreciated the same only 33 1/3 per cent. above its pre-war cost. This action of the Master was made the subject of the first, second, third, fourth, fifth, sixth and seventh exceptions of the plaintiff (Record pp. 191, 192). The exceptions were overruled by the Court, and the method followed by the Master substantially approved.

Sixth assignment. The evidence showed that for the year ending June 30, 1920, the plaintiff expended $80,322 for maintenance, and the Master found that it had been agreed on the hearing that this amount was so spent (Record p. 190). The evidence also showed that for the year ending December 31, 1920, the plaintiff had expended for maintenance the sum of $90,861, and no evidence in controversion thereof was adduced. In applying the constitutional test, the Court allowed a maintenance charge of only $70,000. This error appearing for the first time in the opinion of the Court was not the subject of an exception, but is made the subject of an assignment of error.

Seventh assignment. The evidence introduced by the plaintiff showed that there was a large amount of deferred maintenance which accrued during the war period. The Court refused in testing the constitutionality of the ordinance to make any allowance for the amortization of such deferred maintenance (Record p. 235). This error appearing for the first time in the opinion of the court, was not the subject of an exception, but is made the subject of an assignment of error.

Eighth assignment. The Court, in testing the constitutionality of the ordinance, did not take as a test period any period of actual operations of the plaintiff's street railway property, but on the contrary assumed that the revenues for the year ending June 30, 1921, would be twice the revenues for the six months ending December 31, 1920, and that the operating expenses for the year ending June 30, 1921, would be the same as for the year ending June 30, 1920 (Record p. 228). This error appearing for the first time in the opinion of the Court, was not the subject of an exception, but is made the subject of an assignment of error.

Under the assignments of error, three issues are raised which relate to the value of the property of the plaintiff for rate making purposes. These three issues will be grouped and discussed in Division I of the Argument as follows:

1. Should the allowance made by the Master of $520,000 for going concern value have been left in the value for rate making purposes?

2. Should the plateau price level of 60 to 70 per cent. above the pre-war prices have been used in determining the present fair value of the property of the plaintiff for rate making purposes?

3. Should the allowance made by the Master as a brokerage fee have been left in the value for rate making purposes?

The remainder of the issues raised relate to the allowances from earnings to be made in determining the net earnings available for return to the plaintiff on its property and to the method to be followed in such determination. These issues will be grouped and discussed in Division II of the Argument as follows:

1. Should the actual expenditures for maintenance have been allowed?

2. Should an allowance have been made, in testing the ordinance, for deferred maintenance?

3. Should the amount of annual depreciation allowance determined by the Master have been sustained?

4. Should the amount of Federal Income Taxes paid by the plaintiff have been included in operating expenses in testing the constitutionality of the ordinance?

5. Should an actual test period have been used in testing the constitutionality of the ordinance, rather than an assumed period ending approximately six months later than the time of hearing?

ARGUMENT

I.

ISSUES RELATING TO VALUE OF PROPERTY.

1. THE ALLOWANCE FOR GOING CONCERN VALUE FOUND BY THE MASTER IN THE SUM OF $520,000 SHOULD HAVE BEEN LEFT IN THE VALUE OF PLAINTIFF'S PROPERTY.

We take it that it is settled as law by the decisions of this Court that a public utility raising a question of the constitutionality of a rate ordinance or statute, has the right to have included in the value of its property that value *"which inheres in the plant where its business is established, as distinguished from one which has yet to establish its business."*

This Court, in the case of the *Des Moines Gas Company* vs. *the City of Des Moines*, 238 U. S. 153, said:

> "That there is an element of value in an assembled and established plant doing business and earning money, over one not thus advanced, is self-evident. This element of value is a property right, and should be considered in determining the value of the property upon which the owner has a right to make a fair return, when the same is privately owned, although dedicated to public use."

This Court also said in the Des Moines case that each case must be controlled by its own circumstances.

The amount to be allowed as going concern value was considered by the Master in this case, and after hearing the testimony, he arrived at a value therefor. In so doing he shows that he knew and understood the element of value which he was determining, and the definition of such element, as given in the decisions of this Court. The element of value in an assembled and established plant, over one not thus advanced, would certainly appear in what a prospective purchaser would be willing to pay for the going concern, rather than build a similar plant, create the executive and operating organization thereof, with the accompanying expenses, hazards and losses, *and this is the very test that the Master applied in arriving at his going concern value* (Record p. 189).

For the purpose of showing that the Master understood what was required under the law as laid down in the decisions of this Court, we quote in full his findings on this point, as set forth in the Record, page 189:

> "*Development cost, going-concern value or value of plant in successful operation,* is, as I understand the decisions, a just and necessary element for consideration in controversies of this character. Various methods of arriving at such value have been applied. The actual outlay during the history of the complainant company and its predecessors in title, which, according to some methods of computation, may be considered as development cost, range from two million dollars downward.
>
> "*It seems to me that what a prospective purchaser should be willing to pay for a going concern whose physical properties are of the net worth of about $1,600,000, rather than build a similar plant, create the executive and operating organizations thereof, with the accompanying expenses, hazards and losses, is a fair test of the going-concern value.* Taking a plant which has been built up during the course of many years, now operating successfully, man and

> machine power harmoniously co-ordinated, fitted by past experience to local conditions, with the price of mistakes in construction and development already paid, it seems to me that it should have a going-concern value at least equal to one-third of its physical properties.
>
> "In other words, it is my best judgment that the going-concern value of such a plant should be at least twenty-five per cent. of the whole value. I have therefore allowed as *going-concern value (or by whatever name called)* one-third of $1,600,000. This is substantially the same amount as that allowed for accrued depreciation and they may be considered as off-setting each other.
>
> "Therefore, these two items will be eliminated from subsequent calculations herein, and the fair value of the complainant's plant, for rate making purposes, held $2,167,805.66" (Italics ours).

Despite the clear statement of the law made by this Court in the Des Moines Case above cited, and more recently in the case of Denver Union Water Company vs. the City of Denver, 246 U. S. 178, and the fact that the Master shows plainly that he understood the law and arrived at the amount of going concern value through the exercise of his sound business judgment as a reasonable man under all the evidence before him, the Court saw fit to disallow the item in its entirety.

Before discussing the reasons which the Court gives why the item for going concern value was *in toto* disallowed, it will be necessary to state more fully than has been stated in the Statement of Facts, the evidence on this element of value which was submitted before the Master by the parties.

(a) Plaintiff's evidence on going concern value.

The plaintiff's engineer, Mr. Gillette, stated before the Master that it was a difficult matter to put before the Master definite testimony which could be applied arbitrarily as a yard stick to measure this element of value. He stated that one way of going about it might be to assume that the system of street railway of the plaintiff was to be now reconstructed, so that it would have to build up its business, and to undertake to estimate the amount of money that it would have to spend before the business was built up to its present state of establishment. This method is commonly referred to among engineers as the Alvord method. Mr. Gillette stated very frankly to the Master that he had always felt that this method of endeavoring to arrive at a definite figure was extremely unsatisfactory, because of the fact that assumption has to be based on assumption, and guess pyramided on guess. He then stated that the way he had always endeavored to put before courts, commissions and masters information from which they might determine the amount of going concern value, was to find out from a complete study and analysis of the financial history of the utility, how much it actually cost the utility in money outlay and sacrifice incurred in order to bring its business to its present state of establishment. Accordingly, Mr. Gillette made five studies with the determination of this cost or sacrifice as their object.

In determining these costs and sacrifices, Mr. Gillette testified (Record, p. 104) that he regarded the plaintiff and its predecessors as agents who had been operating for the respective periods covered by his studies; that the plaintiff had spent certain sums of money for the plant, certain other sums for operating expenses, taxes and matured depreciation. These are all brought together by years. Then the total amount of money paid in by the public, or gross earnings of the business, were ascertained from the records. Then a fair return was allowed on the money paid out by the utility during the respective periods, and a fair return was allowed on the money paid in to the utility by the public during such periods, interest in both such cases being compounded.

In this manner he arrived at total figures of what had been paid out for property, operating expenses and taxes, and accrued depreciation, plus interest, on one hand, and what the public had paid in as gross revenue, plus interest, on the other hand, for the various periods studied; and his conclusion was that the difference between these two amounts for the respective periods, if a surplus in favor of the public, would show that no development cost had been incurred, while if the surplus was in favor of the plaintiff and its predecessors, it would show that the Company had incurred costs or sacrifices to that extent.

Briefly the result of the studies made by Mr. Gillette may be stated as follows:

Determined upon analysis of financial records of the plaintiff and its predecessors from 1881 to June 30, 1920, for addition to record cost of property	$1,006,896.00
Determined upon analysis of financial records of the plaintiff and its predecessors from 1901 to June 30, 1920, for addition to record cost of property	$1,710,300.00

Determined upon analysis of financial records of the plaintiff and its predecessors from 1881 to June 30, 1920, after elimination of income taxes, for addition to record cost of property.........$973,960.00

Determined upon analysis of financial records of the plaintiff and its predecessors from 1881 to June 30, 1920, for addition to estimated cost of property $1,414,132.00

Determined upon analysis of financial records of the plaintiff from 1905 to June 30, 1920, for addition to record cost of property..............$575,300.00

The significance of the dates of the starting points of the various studies is that 1881 is the date of the original construction of the property, 1901 is the date of the reconstruction of a large portion of the property demolished by the tropical storm of 1900, and 1905 is the date of the acquisition of the property by the plaintiff and its re-organization under this new ownership.

Neither Mr. Gillette, as the expert for the plaintiff, nor the plaintiff, contended that any of the amounts thus determined were to be taken by the Master as a fixed criterion of what the going concern value in the plaintiff's property was. On the contrary, Mr. Gillette specifically testified that his studies determined merely the costs and sacrifices which had been incurred in building up the business (Record, p. 105); and furthermore, that he recognized a distinct difference between a cost and a value, but that because a cost was excessive, that was no reason for ignoring the item altogether (Record pp. 105, 109). Mr. Gillette further gave an illustration of his meaning in this respect, by saying that if it was found that a utility had expended an extraordinarily large amount for engineering, it would be natural to expect that the large amount would be disallowed, but because the large amount was disallowed, there would be no logic and no reason in refusing to allow what the Company should reasonably have expended for engineering (Record, p. 109). Accordingly, in line with this testimony, Mr. Gillette testified that he thought the largest of the determinations which he made would, if allowed as going concern value, be exorbitant (Record, p. 105). The plaintiff urged the Master to consider the testimony as showing costs and sacrifices incurred, and requested him to determine therefrom and through the exercise of his sound business judgment, the amount of going concern value which now existed in the established business of the plaintiff.

(b) Defendants' evidence on going concern value.

Mr. Elrod, the engineer for the defendants, said that he was "of much the same opinion as Mr. Gillette regarding the Alvord method of arriving at going concern value" (Record, p. 123). He did, however, introduce a study for the cost of developing the business made up by a method substantially similar to that used by Mr. Gillette in making his studies, using a slightly different method of deducting accrued depreciation, and came out with a development cost in favor of the plaintiff of over $2,000,000 for the period from 1881 to June 30, 1920 (Record, p. 125; defendants' Exhibit No. 10, Record, p. 171). Another witness for the defendants, a public accountant named T. A. Gallaway, also made a study which was introduced by the defendants to determine the development cost; he followed somewhat the same method, beginning his period of study with December, 1904, and ending as of June 30, 1920. His determination of the development cost, as his table was finally corrected by him for admitted errors under cross examination, was $212,452 (Record, p. 131). The reason that Mr. Gallaway got a figure so much below the computations made by the other witness for the defendants, Mr. Elrod, and by the plaintiff's witness, Mr. Gillette, was because instead of using the actual record costs in making his determination of the amounts paid by the plaintiff and its predecessors, as Mr. Elrod and Mr. Gillette did in their studies, he used estimated figures as to value which were lower than the records showed.

It is clear, when the evidence which was before the Master is borne in mind, that he arrived at his conclusion as to what amount of going concern value adhered in the property of the plaintiff, by considering the evidence of cost which was testified to by witnesses for both the plaintiff and the defendants, and by exercising his own sound business sense.

(c) The admitted facts in this case bring it well within the principle of the case of Denver Union Water Co. vs. Denver, 246 U. S. 178.

From the decision of the lower Court in this case it is clear that the judge believed that a public utility, when the value of its property is determined on the basis of reproduction with construction overheads allowed for, is not, as a matter of law, entitled to any allowance for going concern value. That the lower Court is wrong in this conclusion is shown conclusively by a careful examination of the decision of this Court in the case of *Denver Union Water Company* vs. *City of Denver,* 246 U. S. 178.

The Denver Case and this case are on all essentials alike, and where the facts involved differ the balance is in favor of the case at bar.

In the Denver Case, as in this case, the property was valued under the reproduction method; in the Denver Case the valuation was made as of the time of the hearing, while in this case the valuation was on a cost basis with an appreciation of cost to bring the value up to the existing value. Certainly there is no basis for a distinction here; the result arrived at is legally the same—namely present value.

Furthermore, in the Denver Case, as in this case, construction overheads were allowed for. Whatever difference there is in the matter of overheads is in favor of the case at bar, where the overheads were only 15 per cent. of the remaining property, while in the Denver Case the overheads constituted about 20 per cent. of the remaining property.

In addition, there were in the Denver Case even stronger reasons than in the case at bar for believing that the public would be, as the lower Court in this case said, "certain to take advantage" of the service of the utility, for it appeared in the Denver Case that the Denver Union Water Company had a monopoly of the business of furnishing and supplying water to the inhabitants of the city and county of Denver, and that the territory served was a semi-arid country. If there ever was a case where the service that a public utility intends to render would be quickly demanded, that was the case. The evidence in the Denver Case, therefore, is that it was easy to establish the business. In the case at bar the evidence shows that it has been a very difficult and costly undertaking to establish the business. The record is replete with references to injuries to the property and business of the Company caused by the occurrence every few years of tropical storms with the accompanying flooding of the city by the waters of the Gulf of Mexico. See agreement in record with respect to the damage incurred by hurricane which struck the City of Galveston on September 8, 1900, causing a loss of approximately six thousand lives and many millions of dollars in property values (Record, p. 97), demolishing the power house of the predecessor of the plaintiff, washing away a large portion of its tracks and destroying considerable portions of its other tangible property. Similar storms of less intensity struck the City of Galveston in the years 1909 and 1915 (Record, p. 120).

Also, the 1915 storm did serious damage to the property of the plaintiff. Only three cars were uninjured. On all the others the motors had to be rewound. Some track was washed out entirely, while other track was covered by sand from an inch to three feet in many places. Also a large number of poles were blown down. (Record pp. 120, 121.)

These storms and the damage they did repeatedly to the property and business of the plaintiff constitute a tangible reason why it has cost an unusually large amount of money to establish the business of the plaintiff and its predecessors. Since this court has said that in considering the question of going concern value every case must stand on its own peculiar circumstances, these storms and the damage they did have a relevant and vital bearing on the cost of establishing a street railway property in Galveston.

There is a striking *parallelism* between

Assignment of Error No. 18 in the Denver Case, disallowed by this Court in that case,	AND	*The reasoning of the lower Court in the case at bar rejecting the item for going concern value.*
. . . .		. . . .
The Master "should have found that in appraising the property of the complainant company at reproduction cost less accrued depreciation including engineering, contingencies and interest during construction, the property has been appraised as an assembled and established plant doing business and earning money, and that the intangible element of so-called going concern value ought not therefore to have been added."		"In view of the valuation used by the Master in this case, of historical reproduction cost, with an appreciation added for the present day valuations, with all overheads properly added and allowed for, taking the City of Galveston as it is with a street car service already fully developed, and a public demanding street car service, and certain to take advantage of it, an allowance for going concern in this case in addition to allowances already made, as a basis for enjoining the exercise of a legislative prerogative, must be discarded." (Rec. pp. 222, 223.)

And just as striking a *contrast* between

Report of Master in Denver Case, sustained by this Court,	AND	*Reasoning of the Lower Court in this case.*
"Such valuation of the entire property has been made precisely as if the plant were about to commence serving the public, with its business yet to be established. *The plant is one 'where its business is established' and is an assembled and established plant doing business and earning money. It follows that the 'element of value'* * * * *the 'property right'* * * * *going concern value—remains to be appraised.*"		"In any case where a plant is fully valued upon the cost of reproduction basis, the allowance of any element for development cost cannot, in a judicial proceeding, be reasonably sustained, for the reason that such a utility is entitled to a reasonable rate of return upon its plant from the day it goes into operation, and the Court does not take into consideration at all that there may be lean years before the fat ones. Therefore a court in a rate case *has nothing to do with any increment to the actual value of the plant acquired by the successful operation of it* * * * * ." (Record, p. 222.)

Furthermore, the lower Court, in denying any allowance for going concern value in this case, indicates its belief that if in a given case property is not valued as junk, but is valued on the reproduction method at what it would cost to reproduce the physical property, then it is not entitled to any going concern value. This is clear from the fact that the Court, in its main opinion, says:

> "It is very evident that the parties in making their agreement on value, and the Master, in valuing the plant, valued it as a plant in use, *and not in any sense as junk* or a dead and idle property." (Record, p. 223).

It would seem that the lower Court has entirely misconceived the decision of this Court in the Denver Union Water Case. In that case a contention was made that the property should be valued as junk, because of the claim that the franchises of the Company had expired. The majority opinion of this Court rejected that contention and held that the property was properly valued on the basis of reproduction as to the structures, and present value as to real estate, and in addition to such valuation, allowed a going concern value of $800,000.

If this Court is not to overrule its decision in the Denver Union Water Case, then it would seem clear that the decision of the District Court in this case on this point must necessarily be overruled, as directly contrary to that decision; and the decision of the Master, allowing $520,000 for going concern value be affirmed, unless the further ground which the Court takes on the petition for rehearing is tenable.

(d) No going concern value was included in the base value agreed to by the Engineers for the plaintiff and defendants.

In the opinion on rehearing the Court seems to change its ground and denies that it refused in the main opinion to allow anything for going concern value, and states that its decision was based on the fact that under the agreements of the engineers as to the historical reproduction cost of the property of the plaintiff (Record, pp. 135, 136), going concern value was included in the base figure (Record, p. 232).

We submit that this position of the Court in its opinion on the petition for rehearing is not at all tenable on this record.

The agreement to which the Court refers stated in part:

> "The estimated undepreciated cost of reproduction of the railway property of said Company on the historical basis, *exclusive of franchise value, going concern value (development cost)* bond discount and brokerage fee, is $1,720,000, as of June 30, 1920. This estimate is made as nearly as possible on the basis of the prices which were in effect at the time of construction of the component elements of the property, except for lands and right of way, which are estimated at their present value." (Italics ours.) (Record, p. 135).

In other words, in the very agreement which the Court quotes as showing that going concern value had been included in the base value, *going concern value was expressly and specifically excluded.* Apparently the only basis which the Court had for saying that it was not excluded was the fact that after the words "going concern value'' the engineers put in parentheses the words ''development cost.'' Instead of indicating, as the Court says, that the engineers had not excluded going concern value in their base figure of $1,720,000, the form of agreement shows a clear intention to exclude everything in the nature of going concern value by whatever name it is called, whether going concern value or development cost, or anything else of that nature.

Furthermore, the very agreement itself says that the estimate is made as nearly as possible on the basis of prices that were in effect at the time of the construction of the *component elements of the property,* with a certain exception. In other words, the very basis of this agreement was the aggregate of the cost of the component elements. This is plain internal evidence in the very agreement which is being construed that the engineers did not add anything to the cost of the component elements for going concern value, because the clear inference deductible therefrom is that nothing else was intended to be included.

Furthermore, the Master who heard this case and all the evidence except the testimony of one witness on price trends, who testified before the Court for about a half an hour on one day, in his report shows clearly that he did not treat the agreement as including any going concern value in the base figure, for he makes his allowance for ''development cost, going concern value, or value of plant in successful operation'' (Record, p. 189) and then adds it to the agreed base value. In his finding also he goes on to take up definitely what he means by going value, and he says:

> "Taking a plant which has been built up during the course of many years, now operating successfully, men and machine power harmoniously coordinated, fitted by past experience to local conditions, with the price of mistakes in construction and development already paid, it seems to me that it should have a going concern value at least equal to one-third of its physical property" (Record p. 189).

The Master says further:

> "I have allowed as going concern value *(or by whatever name called)* one-third of $1,600,000" (Italics ours). (Record, p. 189).

Further indicating that the engineers did not include in the agreed base value any going concern value is the fact that both engineers consistently use the term development cost as measuring the cost on account of the expenditure of which there inheres in the property going concern value. That this is what Mr. Gillette, the engineer for the plaintiff does, has already been referred to above. He states definitely that he computed the development cost as a cost in order that the Master might determine therefrom the value inhering in the property because of the incurrence of the cost.

Furthermore, Mr. Gillette, on cross-examination, in describing the process by which he arrived at the reproduction figure which was the basis of the agreed base value, testified as follows:

"Q. Now you say that you made an inventory of what you call the bare bones of the property?

"A. Yes sir. I call it the physical plant.

"Q. You call it the physical plant instead of the bare bones?

"A. Yes sir.

"Q. The physical plant is the plant as it stands, aside from overheads?

"A. Yes sir, the inventory is on all units of property such as cars, poles, ties, etc."
This clearly shows that Mr. Gillette does not include in his estimated reproduction figure which was the basis of his agreement, any amount for going concern value.

Likewise Mr. Elrod, the engineer for the defendants, made a computation of development cost, as did also Mr. Gallaway, the accountant for the defendants. Mr. Elrod, also as above mentioned, criticised the Alvord method of arriving at going concern value, and so used substantially the same method of determining development cost as Mr. Gillette did. This all would be entirely inconsistent with the conclusion of the Court that the engineers had included going concern value in their agreed base figure.

If the engineers had included going concern value in their agreed base figure, as the Court asserts they did, the record would be full of denials, express and specific, that anything more should be added, and the express statement would have been made by the engineers for both parties when on the stand that the going concern value had already been included by them in their base figure. The very absence of such denials in the record and the very presence of the computations from which the Master might arrive at going concern value made by the engineers for both parties, show clearly that the engineers did not include any going concern value in their agreed base figure.

The fact is also that the first time that anybody connected with this case suggested that the engineers had intended to include any going concern value in their base figure under their agreement, was when this suggestion was made by the judge in his opinion on the motion for rehearing. It is inconceivable, if the engineers had intended to include going concern value in their agreed base figure, that this case could have been tried as it was and the claim for going concern value asserted both before the Master and the Court, and this point, if it were true, never mentioned.

Every fact which has any bearing on this point shows that the judge in his conclusion that going concern value was included by the engineers in their agreed base figure, is absolutely in error.

(e) Memorandum of cases relating to Going Concern Value.

For convenience of reference there are listed below some of the cases in addition to those decided by this Court already mentioned, in which the question of going concern value has been involved, and an allowance therefor has been made.

In the following cases involving the regulation of rates going concern value has been allowed as a part of the rate base:

Knoxville v. *Knoxville Water Co.*, 212 U. S. 1.

Cedar Rapids Gas Co. v. *Cedar Rapids*, 223 U. S. 655.

Pioneer Telephone Company v. *Westenhaver*, 29 Oklahoma 429, 118 Pac. 354, 359, 360.

Public Service Gas Company v. *The Board of Public Utility Commissioners*, 84 N. J. Law 463, 87 Atlantic 651, 657.

Public Service Gas Company v. *Board of Public Utilities Commissioners,* 87 N. J. Law 581, 92 Atlantic 606 (affirming decision last cited).

People v. *Wilcox,* 141 N. Y. Supp. 677, 681.

People v. *Wilcox,* 210 N. Y. 479, 104 N. E. 911, (affirming the decision last cited).

M. K. & T. Railway Company v. *Love,* 177 Fed. 493, 496.

Love v. *A. T. & Sante Fe Railway Company (C. C. A.),* 185 Fed. 321, (affirming decision last cited).

Metropolitan Trust Company v. *Houston etc. Railroad Company,* 90 Fed. 683, 687.

Venner v. *Urbana Water Works Company,* 174 Fed. 348, 352.

Des Moines Water Company v. *City of Des Moines,* 192 Fed. 193, 197, 198.

Bondbright v. *Geary,* 210 Fed. 44, 51, 54.

The same principle has been applied in the following purchase cases:

Norwich Gas and Electric Company v. *City of Norwich,* 76 Conn. 565, 57 Atlantic 746, 750, 751.

National Water Works Company v. *Kansas City,* 62 Fed. 853.

Gloucester Water Company v. *Gloucester,* 179 Mass. 365.

Newbury Water Company v. *Newbury,* 168 Mass. 541.

Galena Water Company v. *Galena,* 74 Kan. 644, 87 Pac. 735, 736.

Kennebec Water District v. *City of Waterville,* 97 Me. 185, 54 Atlantic 6.

Brunswick Water District v. *Maine Water Company,* 99 Me. 371, 59 Atlantic 537.

Longbranch v. *Tintern Manor Water Company,* 70 N. J. Equity 71, 62 Atlantic 474, 478.

Omaha v. *Omaha Water Company,* 218 U. S. 180, 191, 202.

It is submitted that a clear right to the inclusion of the going concern value as determined by the Master is made out on both the facts and the law. The Master's finding on this point should be sustained, and the findings and rulings of the lower Court disapproved.

2. IN THE DETERMINATION OF THE PRESENT FAIR VALUE OF THE PROPERTY OF THE PLAINTIFF THE COURT SHOULD HAVE ADOPTED THE PLATEAU PRICE LEVEL OF 60 TO 70 PER CENT. ABOVE PRE-WAR PRICES.

Under the decisions of this Court, the object of the determination with respect to value is the present fair value of the property employed in the public service. *Wilcox* vs. *Consolidated Gas Co.,* 212 U. S. 19; *Minnesota Rate Cases,* 230 U. S. 352; *Des Moines Gas Company* vs. *the City of Des Moines,* 238 U. S. 153.

All of these cases support the proposition that it is not the original cost of the property in question which is to be taken as the basis for the determination of the constitutionality of a rate statute or ordinance, but it is rather the present value of the property.

(a) The new economic conditions.

That the new economic conditions prevailing in this country with respect to higher prices for materials and labor which enter into the construction of a public utility are a proper consideration in the determination of the value of a public utility for rate making purposes in applying the constitutional rule, seems to follow as a necessary corollary to the established rule. It is also stated so to be in the opinion of this court in the case of *Lincoln Gas and Electric Light Company* v. *Lincoln*, 250 U. S. 256. In that case a decree had been entered in the lower court dismissing the bill without reservation or qualification. This Court held that such decree was wrong and ordered its modification, using the following language:

> "The decree dismissed the bill, however, so far as it related to the rate ordinance without reservation or qualification. Perhaps it would go without saying, but in our opinion, the decree ought to be modified, so as to permit complainant to make another application to the courts for relief against the ordinance hereafter if it can show as a result of its practical test of the $1.00 rate since May 1, 1915, or upon evidence *respecting value,* cost of operation and the current rates of return upon capital, as they stand at the time of bringing suit, and are likely to continue thereafter, that the return is confiscatory in its effect *under the new conditions.* It is a matter of common knowledge that, owing principally to the world war, the costs of labor and supplies of every kind have greatly advanced since the ordinance was adopted, and largely since this cause was last heard in the court below." (Italics ours.)

(b) The new plateau of prices is to be 60 to 70 per cent. above pre-war prices.

In accordance with the language of this Court in the Lincoln Case, supra, evidence was introduced before the Master in this case as to the estimated cost of reproduction of the property of the plaintiff at prices for labor and material which prevailed at the time of the hearing. It appeared that under such conditions the cost of reproducing such property would be $3,472,094 undepreciated (Record, p. 140), and that the depreciation thereon, determined on the basis of such higher cost, would be $835,236, so that the present value of the property, exclusive of going concern value, would be $2,636,858 (Record p. 140).

Recognizing that the prices for labor and material which existed at the time of the hearing were not stabilized at that level, but on the other hand were even then declining, the plaintiff did not contend for a value of its property on the basis mentioned.

On the other hand, the plaintiff put in a careful study made by Mr. Gillette for the purpose of putting before the Court evidence from which it could find a plateau price level, that is to say, a level of prices of materials and labor which would be established after the then existing rapid decline in prices had run its course, as a stabilized price level running into the future. The result of such study was that the prices of labor and materials for a considerable period in the future in this country would be from 60 to 70 per cent. above the pre-war level, with a very gradual downward tendency.

Mr. Gillette's masterly examination of this subject is disclosed in the record at pages 78-91 inclusive. He made a very careful study of the price determining factors and deduced a formula therefrom for the determination of average wholesale commodity prices. Mr. Gillette's study disclosed that wholesale commodity prices vary directly with the amount of money in circulation in this country, and with the velocity with which such money is turned over in business. He also found that average wholesale commodity prices vary inversely with the population of the country and the per capita efficiency of production. Although the proposition seems to contain factors so difficult of determination as not to be capable of rational treatment, it is submitted that the problem was rationally solved by Mr. Gillette, and that the correctness of his solution is demonstrated beyond doubt by the result obtained by applying fundamental statistics to his formula for a period of many years. The result does not vary from the recorded average wholesale commodity prices by more than a few per cent. at any time, and follows the line of sharp ascent in wholesale commodity prices beginning in 1915 and ending in May, 1920, with a startling preciseness. This is disclosed by plaintiff's exhibit number 2, witness Gillette, marked page 246, following page 136 of the record.

Mr. Gillette contended that the accuracy of these results disclosed beyond doubt that the factors used in the calculation of wholesale commodity prices were the actual factors which determined such prices.

Accordingly, Mr. Gillette finds that the marked advance in commodity and labor prices in this country has been due fundamentally to the large increase in currency, due first to the heavy importations of gold during the early days of the World War and before the United

States entered it, and to the increase in Federal Reserve notes since 1914. The extreme war prices were due to the combination of this increase in currency and the increase in the velocity of exchange, since business during the war period was very much speeded up, and the speeding up of the velocity of exchange or turnover would have the same effect as a corresponding increase in the amount of currency. Mr. Gillette's determination of the efficiency of production showed that efficiency per capita, notwithstanding the large number of men taken from industries for fighting purposes, did not decrease during the war, but has remained practically constant for a period of ten years (Record p. 86). He explained the reason why there had been no increase in per capita efficiency during the last ten years by the fact that the shorter working hours began about that time to be introduced in industry and the shorter day had an offsetting effect upon the preceding upward trend of efficiency. He stated that the abrupt drop in prices which started in May, 1920, and which has only recently stopped, and again started slightly upward, was caused by a sharp decline in the velocity of turnover of money in business (Record p. 89). He stated that when the velocity of turnover got back to where it was before the war, we would have left in our economic situation, so far as prices were concerned, nothing of an abnormal nature, except the volume of money. The volume of money in this country is between 60 and 70 per cent. higher than it was before the war, with the probabilities in favor of its increasing rather than decreasing. The nations of the world owe us approximately $10,000,000,000, and there are only $9,000,000,000 of gold in the world, of which we have about one-third. Accordingly, what we lose through trade balances for considerable periods in the future, will be made up to us again through the payment of interest and principal on our foreign loans. Mr. Gillette's conclusion was that our money, therefore, is likely to continue at about its present level, which is about 60 or 70 per cent. higher than it was in 1913. This means that prices will settle at about 60 to 70 per cent. above the pre-war base, and on that level will be stabilized as much as prices ever can be stabilized (Record p. 89). Looking forward and assuming a continuance practically of our present money level, Mr. Gillette felt that expected increases in population and increase in the efficiency of per capita production, would have a slight lowering effect on prices of about 3 per cent. per annum (Record, p. 90).

Mr. Gillette stated that his pricing out of the property of the plaintiff at present prices for labor and material indicated that it would cost to reproduce the plant as of June 30, 1920, about 2.1 times as much as it would have cost five or six years ago, before the rise in prices, and about 2.1 times as much as it did cost on the historical basis. In view of the tendency of prices downward, he did not believe that this high valuation was a proper one for a rate base, but that this plateau of prices as determined by him, of about 60 to 70 per cent. above the pre-war base, would be a proper basis of valuation, owing to the fact of its probable relative stability.

The engineer for the defendant, Mr. Elrod, did not price out an inventory of the property at prices for labor and material existing as of June 30, 1920. He did state, however, that:

> "General construction materials such as were used in this plant have increased in price some 112 per cent. since 1914. Present prices are approximately 2.1 times 1914 prices." (Record, p. 127).

Also in this connection the Master found:

> "It was admitted by both parties on the hearing that present prices are about 2.1 as compared to the pre-war unit." (Record, p. 187.)

The Master decided that in the present case it would be fair to increase the historical reproduction cost of the property by 33 1/3 per cent. to compensate for the increase in prices of labor and material entering the construction of the plant, and he applied this 33 1/3 per cent. increase over cost merely to the property which he conceived to be appreciable, and excluded therefrom all property bought since January 1, 1915, working cash, materials and supplies, real estate and right of way, and some other items, including overheads.

This action of the Master was subject to exceptions by both parties, the plaintiff contending that the plateau of prices 60 to 70 per cent. above the pre-war base should be taken as a basis for value. The Court overruled the exceptions of both parties in this respect, and sustained the decision of the Master in substance, although it did cause to be appreciated the overheads which the Master left out in applying the factor of increase.

The plaintiff believes that the plateau of prices 60 to 70 per cent. above the pre-war base, as determined by Mr. Gillette, represents an accurate determination of the prices which are likely to prevail for a considerable period in the future, and there was no evidence introduced in the case in controversion thereof. Mr. Elrod, the expert for the defendant, did testify that in his opinion a new plateau of prices would be created, and although he could not *guess* at what the exact level would be, he thought it would be lower than Mr. Gillette's determination (Record p. 130). This evidence, as appears from the record, was not based on any careful study of the problem, as was Mr. Gillette's opinion. What Mr. Elrod did after saying he did not have the basis even for a guess, was to proceed to guess.

(c) Sound principles of economics compel the adoption of the new plateau of prices as a base for determining value.

The economics of the present value rule adopted by this Court are undoubtedly sound. It is only by varying the value of a public utility property that the return to the owners can keep pace with fluctuations in prices. If property, due to a general rise in commodity prices, doubles in value, unless the value of such property for rate making purposes is likewise correspondingly increased, the owner gets paid his return in fifty cent dollars, because his return will only buy for him half as much in commodities as it did when the property was acquired. Of course all any one wants money for is to buy commodities with it, either directly or indirectly. A sane discussion of the economic principles applicable to such a case is contained in the opinion of Judge Learned Hand in the case of *Consolidated Gas Company* v. *Newton*, 267 Fed. 231.

Accordingly, unless the value of the plaintiff's property is based on the plateau prices which will be 60 to 70 per cent. above the pre-war base, the owners will get their return in dollars greatly depreciated in value, so far as purchasing power is concerned, with a resulting injustice to them. The only logical thing to do is to value this property on the new plateau price level. The adoption of the 33 1/3 per cent. factor of increase applied to the appreciable property, instead of the 60 to 70 per cent. factor of increase contended for by the plaintiff, makes a difference in value against the plaintiff of approximately $400,000. In all fairness this amount should be added to the value.

3. THE ALLOWANCE FOR BROKERAGE FEE FOUND BY THE MASTER SHOULD HAVE BEEN LEFT BY THE COURT IN THE RATE BASE.

The Master, on the evidence introduced before him, found that the brokerage fee contended for, namely $67,078, was "a normal incident of large industrial investments and has not been amortized, and since the record shows that during the larger part of its history this plant has been operated at a loss, I have allowed the item as a proper element of cost."

The brokerage fee claimed by the plaintiff was described in the report of its engineer put in evidence before the Master, as follows:

> "Loans of comparatively small amounts of money for the construction of public utility properties have commonly cost in commissions and expenses from 4% to 5% of the net amount borrowed. The fact that these are most frequently paid in the form of discounts on securities issued has led to some confusion in this matter, since discounts are obviously dependent upon other factors also—in particular that

> of the interest rate which the securities bear. In accordance with these facts the discounts commonly given on the sale of securities in either large or small amounts are observed to be composed first of a fee paid for brokerage services, and second of an amount of percentage which is dependent upon interest rates and other factors. *Only the fee element is here considered.* (Italics ours). The cost of constructing public utilities is usually provided for by the sale of bonds totaling 75% to 80% of the entire amount, and by stock subscriptions or sales for the remaining portion, but the cost of brokerage is substantially the same for the total. On Accounts numbers 1-44, 47 and 48—$1,676,958 × 0.04 = $67,078." (Record p. 160).

What is here contended for is, accordingly, not an allowance for security discounts, but an allowance merely for the fee which would have to be paid to a banker in order that the money necessary to be raised by the plaintiff in order to construct its property could be secured. In other words, the allowance is asked as the cost of procuring the money.

As pointed out in the excerpt above quoted from the report of the plaintiff's engineer, security discounts as distinguished from the fees for brokerage are merely an adjustment of the interest rate. If at the time that securities are issued they bear an interest rate which will permit of their being marketed at par, then it will be necessary, obviously, to sell the bonds at a discount in order to adjust the interest rate to market conditions at the time that the bonds are so sold. If the bonds had borne on their face the market interest rate for such securities, they could have been sold at par. Accordingly it is admitted that such a discount is merely an adjustment of the interest rate, and as such it should be taken care of out of the return on its property, and not capitalized. In this case no claim whatever is made on account of security discounts.

Entirely apart from such transactions and absolutely distinct therefrom is the payment to the banker who procures the money for a company, of a fee for procuring the money. This is the claim which is here made. A reasonable fee for such service, as appears from the testimony on this point in this case, would be 4 per cent. of the amount of money raised.

Before a public utility can be constructed it must obtain the necessary funds with which to pay the cost of acquiring or constructing its property. Money is a commodity like other commodities, and it can not be procured for nothing. If the utility undertakes itself to raise the money, it will itself have to employ salesmen and expend money for advertising and generally incur the expenses incident to a sale of securities.

The utility may, instead of doing such work with its own organization, employ the services of a banker or broker who has built up an organization for just such a purpose, and pay him a fee therefor. In all probability the fee charged would be less than the expense which would be incurred by the company if it undertook to do the work itself.

One of the reasons given in the opinion of the Court for denying the allowance for brokerage fee was that it would not be necessary, in view of the fact that the property of the plaintiff had been brought to its present state by accretions, that is to say, by piecemeal construction. It is submitted that whatever method of construction was employed, money for the purpose had to be raised and the brokerage fee as a direct payment would have to be paid, or the equivalent expense incurred by the Company. The fact is that where property of a utility is constructed piecemeal, then the very smallness of the issues of securities placed from time to time would probably increase the brokerage fee, so that the reason which the Court gives for disallowing the item would have the actual effect of increasing the expenditure. Certainly there is no logic in the position of the Court that because the properties were so constructed, no brokerage fee whatever should be allowed.

It is further said in the opinion of the Court that if in any case brokerage is allowable, it should be amortized over the period for which the franchise of the plaintiff runs, rather than set up as a permanent addition to capital. It is to be noted, however, that the Court, in its financial set-up of the Company, makes no allowance for amortizing this charge; and also that if it did, the per annum charge would be far greater than the charge which would result from merely adding it to property value. This results from the fact that not only would the amortization charge have to include interest on the unpaid balance, but also a considerable portion of the principal in addition. When the amount is added to capital, it obviously carries a charge only for interest. It is of course a matter of discretion as to whether charges which may be incurred by a utility shall be amortized through earnings, or added to capital; but a normal brokerage fee charged once on a property and remaining in the value permanently, is as fair an arrangement, from the standpoint of the public, as can be conceived, because the utility here only gets one allowance, when as a matter of fact, during the course of its history, it is probable that it may incur the expense many times, through refunding issues of its securities. To say to the public that they shall include in the permanent value of the property, and in the rate base, only one such item, and that the Company will itself bear the burden out of its return for the balance, is certainly to use the public fairly, and even generously. If, however, this Court is to adopt the amortization principle as applied to brokerage (and it must either be paid out of earnings or added to principal), an allowance for interest and amortization of principal should be made in the financial set-up for the test period.

The allowance for brokerage contended for finds support in the decision of this Court in the case of the *Des Moines Gas Company* v. *City of Des Moines*, 238 U. S. 153, in which this Court, after expressly referring to the fact that the Master in that case made an allowance in his overhead charges for "time and money expended in the promotion of the enterprise, in the organization of the Company, and interesting capital therein," approved the findings of the Master.

II.

ISSUES RELATING TO DETERMINATION OF NET EARNINGS AVAILABLE FOR RETURN ON PLAINTIFF'S PROPERTY.

1. THE ACTUAL MAINTENANCE EXPENDED BY THE PLAINTIFF IN THE TEST PERIODS SHOULD HAVE BEEN ALLOWED BY THE COURT INSTEAD OF THE ARBITRARY MAINTENANCE CHARGE OF $70,000.

The evidence before the Master introduced by both the plaintiff and the defendant was that during the year ending June 30, 1920, the actual maintenance expended by the plaintiff was $80,322 (Plaintiff's testimony, Record p. 103, 110, 111. Defendant's testimony, Record p. 122, 166). So clear was this evidence with respect to maintenance for the year ending June 30, 1920, that the Master said:

> "*It is agreed* that the complainant spent $80,322 for *actual* maintenance during said period." (Italics ours). (Record p. 190).

No evidence was introduced by the defendants criticising in any way the amount of this maintenance or the purposes for which the money was spent. On the contrary, Mr. Elrod, the engineer for the defendants, testified expressly that:

> "In my opinion the recorded maintenance actually incurred and paid for by the Company during the past twelve months, amounting to $80,322, *is a fair maintenance.*" (Italics ours). (Record p. 122).

The plaintiff did contend that the amount actually spent was too small in amount and less than should have been spent, and contended for a greater allowance. The defendants did dispute this contention, but merely by contending, as stated, that the recorded maintenance was a fair amount (Record p. 122).

No exceptions as to the maintenance allowance made by the Master were taken by either party.

At the hearing before the Court, after the Master's report had been filed, financial statements for the six months' period between June 30, 1920 (the last date to which operating statistics were put in evidence before the Master) and December 31, 1920, were introduced by both the plaintiff and the defendants, as well as the figures for the year ending December 31, 1920. These figures as introduced by both parties showed that the amount actually expended for maintenance for the year ending December 31, 1920 was $90,861.28 (Record pp. 134, 184). This expenditure was not contested by the defendants in any way.

Notwithstanding this situation with respect to the expenditures for maintenance, the Court, for no other reason, we believe, than the fact merely that the maintenance charge during the war years was sub-normal, so that the maintenance for the two periods mentioned was considerably larger than it was during the war years, inferred that the maintenance was too large, and arbitrarily cut it down to $70,000 a year (Record p. 229). The reason why the maintenance expenditures during the war years, notwithstanding the rapid increases in prices during those years, in both labor and materials, did not rapidly increase correspondingly, is clearly shown by the evidence before the Master. Mr. Gillette for the plaintiff testified as follows:

> "Starting in 1916 the maintenance dropped off to a very marked degree for three years, although prices were rising very rapidly. Those years were sub-normal in maintenance, for as everyone knows, during the war these companies were unable to get materials which they needed to make their repairs, and later were enjoined by the government not to buy any more material than they needed at that time, so as to leave as much as possible for war purposes." (Italics ours). (Record p. 103).

In other words, this plaintiff, in common with other utilities, found itself, first, unable to get the materials that it needed to make the normal amount of repairs, and second, even though the materials and labor had been available, it was enjoined by the government not to buy any more than was absolutely essential, in order to release as much material and labor as possible for war purposes. Accordingly, this plaintiff naturally cut its maintenance down to the lowest possible point.

When the war was finally over and the plaintiff was again free to do the normal amount of maintenance work, prices for labor and materials used in maintenance were about twice what they were before the war. Under these circumstances it is but natural that the maintenance after the war should have taken an extremely abrupt rise. For the year 1913, just before the war, the maintenance charge was $49,641 and it had been running in excess of $40,000 for a period of four years before that (plaintiff's testimony Record p. 147, defendants' testimony Record p. 168). When the war was over and when this maintenance was expended, the witnesses for both the plaintiff and the defendant agreed that prices for labor and materials were practically double. Mr. Gillette for the plaintiff testified:

> "I think everybody will agree that maintenance expenses are practically twice what they were in these preceding years, the cost of each unit and labor having practically doubled." (Record p. 101).

Mr. Elrod for the defendants testified that prices of materials and labor entering into the construction of a plant such as that of the plaintiff had increased about 2.1 times over pre-war costs (Record p. 127). Since the same kind of materials and labor go into maintenance, this is the same as though Mr. Elrod had testified that the maintenance costs would now be practically double what they were in pre-war days.

Accordingly it would be normal to expect that the maintenance for the year ending June 30, 1920 would be about double what it was in 1913. In 1913 the maintenance was approximately $50,000, so that a normal maintenance after the war would have been about $100,000. Instead, for the year ending June 30, 1920, the maintenance was actually $80,322, and for the year ending December 31, 1920, $90,861. Therefore the maintenance was actually substantially less than the engineers for both parties testified that it should normally have been.

Such being the facts, this plaintiff finds itself in an extremely unfortunate position, when the lower Court, from the mere fact that its maintenance after the war increased greatly, finds that its maintenance charge is "enormous," and even goes to the length of inferring therefrom that its explanation rests in the fact "that the rate investigation has been under way" (Record p. 229).

In this connection it is pertinent to point out that the case was tried under an express agreement between counsel "that since 1905 the street railway properties of the Galveston Electric Company have been reasonably well managed" (Record p. 130). This agreement alone is sufficient to repel entirely the inference drawn by the Court that the maintenance is unusually large. It is certainly inconsistent with proper management that anything more than proper maintenance shall be done.

The fact is that the maintenance was not enormous, but was even less than it should have been when the known conditions were taken into consideration, as already explained.

On the record the plaintiff believes that this Court should promptly disaffirm the action of the lower Court in arbitrarily and without any basis on the evidence but actually contrary to the evidence, cutting the maintenance charge for the test periods to $70,000, and respectfully asks this Court, in testing the constitutionality of the ordinance, to apply the full expenditures for maintenance for the two test periods, namely, $80,322 for the year ending June 30, 1920, and $90,861 for the year ending December 31, 1920.

2. THE COURT SHOULD, IN TESTING THE CONSTITUTIONALITY OF THE ORDINANCE, HAVE MADE AN ALLOWANCE FOR MAINTENANCE DEFERRED DURING THE WAR YEARS.

While it is recognized that the problem of what should be spent for maintenance for a particular company, apart from its actual operating experience, is a problem so complicated and involved as to be extremely difficult of determination, yet the evidence before the Court in this case shows definitely that during the war years a large amount of maintenance was deferred, that is, that repairs which should have been made during the war years were not made. That these repairs will ultimately have to be gradually made, through the expenditure year by year of amounts larger than normal maintenance, is apparent.

That during the war years maintenance of the property of this plaintiff was very much below normal is apparent from a mere statement of the amounts expended both before and during the war. Thus the actual maintenance charges of the plaintiff for the years 1905 to 1920 inclusive are as follows:

1905	$40,042	1913	$49,641
1906	35,137	1914	47,651
1907	40,523	1915	41,935
1908	37,867	1916	31,319
1909	42,841	1917	33,983
1910	44,449	1918	40,884
1911	42,334	1919	64,108
1912	48,851	1920	90,861

(Record, pp. 145, 146, 182). When, in connection with the foregoing actual maintenance charges, the fact is borne in mind that during the years 1916, 1917, 1918 and 1919 prices of labor and material were very much higher than they were for the years antedating 1914, it is apparent that a very much smaller amount of work was done during the war years than was done under normal conditions before the war.

Through the use of the average yearly index numbers for wholesale commodities in evidence before the Court, a determination was made which showed that during the war years and the two years immediately following, during which war conditions respecting commodity prices continued, maintenance was deferred on the properties of the plaintiff in the following amounts:

1915	$ 5,700
1916	27,200
1917	49,400
1918	52,600
1919	37,000
1920	25,100
Total deferred maintenance	$197,000

Since this maintenance was not deferred by the plaintiff deliberately, and its action in so deferring its maintenance was caused by circumstances either beyond its control or pursuant to a policy established at the express request of the government, to the end that materials and labor might be released for war purposes, the plaintiff contended to the Court that an allowance from earnings for a period of five years in the future should be made, in order to amortize this deferred maintenance.

Recognizing that prices were declining, and since the Court had itself taken in the determination of property value a factor of increase over the pre-war base value of 33 1/3 per cent., this deferred maintenance was adjusted to a basis of 33 1/3 per cent. over the pre-war maintenance for the years in question, making a total deferred maintenance as so adjusted of $147,200. The plaintiff requested the Court to distribute this deferred maintenance over a period of five years, at the rate of $29,450 per year, in addition to normal maintenance at existing prices for labor and material.

This the Court refused to do, saying:

> "Upon no view of it should the public be required to pay such rates as would permit the Company, at the public's expense, to re-establish its property in the condition it ought to have been maintained in. The language of the Supreme Court in the Knoxville Water Company Case has application here. 'If, however, a company fails to perform this plain duty and to exact sufficient returns to keep the investment unimpaired, whether this is the result of unwarranted dividends on over issues of securities, or of omission to exact proper prices for the output, the fault is its own.' " (Record, p. 235).

Thus the Court misconceives entirely the circumstances under which the maintenance was deferred. The Knoxville Case apparently was a case where the company had deliberately failed to perform its plain duty to keep its property properly maintained. In the case at bar, if the plaintiff had, during the war years, kept its property in the best of condition, using materials and labor necessary therefor, rather than, as it did, get along by doing as little maintenance as it possibly could and continue to operate with safety, it would in such case have been violating its obligation to the country. To say that the Knoxville Case and the case at bar are parallel cases, and are therefore to be decided in the same way with respect to this deferred maintenance, is to ignore the facts plainly apparent on the face of the record, and to ignore the common knowledge of everyone at all conversant with public utility affairs during the war period.

The plaintiff sincerely contends that under the conditions, since the maintenance was deferred through no fault of its own, and since it would have been a violation of its duty to the country if it had not deferred maintenance, the plaintiff's request for a moderate allowance of $29,450 a year for the purpose of making up the deferred maintenance should have been promptly granted by the Court, and should have been taken into consideration by the Court in testing the constitutionality of the ordinance in question. Since the lower Court failed in what we believe to be its plain duty in this respect, we respectfully ask this Court for the relief suggested.

3. THE DEPRECIATION ALLOWANCE OF $66,824.40 DETERMINED BY THE MASTER AS NECESSARY TO BE DEDUCTED FROM EARNINGS IN ARRIVING AT THE NET EARNINGS AVAILABLE FOR PAYMENT OF RETURN SHOULD HAVE BEEN SUSTAINED BY THE COURT.

The opinion of the Court on the petition for rehearing leaves the matter of the annual allowance for replacements and depreciation in a condition of extreme confusion.

The Master's report with respect to the depreciation allowance is as follows:

> "It is estimated that 4 per cent. per annum is a proper annual allowance for depreciation. The same should, in my judgment, be applied to the present fair value for rate making purposes of complainant's depreciable property. It was found, supra, that such value of depreciables purchased from January 1, 1915, to June 30, 1920, is $131,000. The sum of $1,539,610.66 was also found as such fair value of other depreciables. The total value of these, or $1,670,610, is the amount of depreciable values on which complainant should be allowed to earn 4 per cent. annually as a depreciation allowance. The result is $66,824.40." (Record, p. 190).

The Court does not, in either its main opinion or the opinion on rehearing, disturb the percentage per annum which the Master found to be proper, namely 4 per cent. What the Court does, however, is to reduce the sum to which the percentage is applied, and where the Master, as shown in the above quotation, figured the allowance on a value of depreciable property of $1,670,610, the Court figured the allowance on a value of depreciables of $1,131,000, with the result that the Master's depreciation allowance of $66,824.40 is reduced by the Court to $45,240.

The process of reasoning by which the Court reduced the value of depreciables as found by the Master, from $1,670,610, as the base to which the allowance should be applied, to $1,131,000, is not clear from the opinion of the Court. It appears in the main opinion that the Court applied the percentage to $1,300,000, but the Court nowhere makes it clear how it arrived at that figure. In the petition for rehearing, the claim was made by the plaintiff that the amount used as the base for figuring the depreciation allowance by the Court in its opinion was erroneous, in that, among other things, the Court had omitted $131,000 of property which the plaintiff had added since 1914. This error the Court acknowledges in its opinion on rehearing (Record, p. 233). It is clear also from the opinion on rehearing that a portion of the difference between the Master's $1,670,610 and the Court's $1,131,000, is that the Court deducted from the depreciable property $202,000 of overheads which were included therein by the Master in determining the depreciation allowance.

With respect to these overheads, the Court says, in the opinion on rehearing, that they were not subject to depreciation and, therefore, not properly included in determining the allowance. The precise language of the Court on this point is:

> "That this disposition is sound as to such items as interest during construction, organization expense,

> law expense, etc., admits of no doubt, because under no kind of theory could they be supposed to be subject to depreciation, and what doubt might arise with reference to the propriety of including engineering charges in these figures is at once dissipated when it is considered that the property will not be constructed again as an entirety, but is to be kept up by annual renewals, from time to time made, so that engineering and other such overheads caused by the assembling of the plant will not have to be provided against, because they will not be again incurred" (Record, p. 234).

We submit that this reasoning of the Court shows a complete misunderstanding of the nature of the problem with which it was dealing. When the nature of the overhead charges is understood, it is apparent that they inhere in and are a part of the physical properties, and that as the physical properties themselves, in the assembling or construction of which the overheads were incurred, depreciate, the value which inhered in such physical properties because of the expenditure of the overheads, depreciates just as surely and certainly as the physical property itself. When the analytical process which the Court says should be employed is employed understandingly, it can lead only to this conclusion.

In order that this may be clear, we desire to take up, seriatim, each of the overhead items allowed both by the Court and the Master, and see whether such overheads are not subject to depreciation along with the physical property to which they relate, and at the same rate.

The overheads are tabulated by the Court in its opinion (Record, p. 223).

The first is engineering and supervision. Engineering and supervision is the engineering and supervision charge incurred when the property of a utility is constructed. What the Court said with respect to this item is that since the property is kept up by annual renewals, and is not reconstructed as an entirety, the engineering and supervision charge will not have to be met again, so it is not subject to depreciation. The Court seems to assume that the engineering on the original construction having been once done, will never have to be done again. The fact is that as the property of a public utility is reconstructed, engineering and supervision are an absolutely essential part of such renewal or reconstruction, and if this were not so, all of the public utilities of the country would be antiquated and would lack all of the advances made by the development of the art since the time of the original construction. It is only by a constant engineering study, as properties of a public utility are renewed or reconstructed, that the advantages of improvements in the art are gained by the utility.

It is a matter of such common knowledge that we assume that this Court will readily take judicial notice of the fundamental fact that engineering and supervision of the reconstruction and renewal of the property of a public utility is just as essential as engineering and supervision in the original construction of the property. The art of transportation is constantly undergoing changes and improvements, and the only way that a utility can get the advantage of such changes is by the employment of skilled engineers and skilled supervisors to replace old property with the new and improved type, so that as time goes on, the whole property of the utility will be modern, efficient and up to date. To make this matter clearer, we will assume that this plaintiff put in, in 1901, a 500 kilowatt reciprocating engine with connected generator, which at that time, for its purposes, as advised by its engineers, was the best type of equipment that could be put in; and that it paid a certain sum to an engineer for giving it that advice, which is included in the engineering and supervision charge that is allowed by the Court. Assume that last year that reciprocating engine, with its attached generator, wore out and had to be replaced. The lower Court seems to assume that all it would be necessary for the plaintiff to do is, relying on the engineering advice given twenty years ago, to go out and purchase another reciprocating engine with generator attached, of the same type it bought twenty years ago, so that no new engineering charge would have to be incurred. As a matter of fact, that type of engine and generator is now recognized as being obsolete and inefficient, and except for standby capacity and in unusual situations, an inefficient and expensive engine and machine to operate. The fact is that the plaintiff faced with the problem of replacing that engine and generator, would have to employ an engineer to make a study of its conditions existing at the time that the replacement was to be made, and to determine, in the light of the development of the art to that time, what type of generator should be installed. The engineer's conclusion in the light of the present conditions in the art, would undoubtedly be that the old reciprocating engine and generator should be replaced with a modern, efficient turbo-generator, and his study and report would have to determine the exact type of engine, its capacity and the method to be followed in its installation and operation.

This is merely illustrative, but exactly the same principle would apply to the entire property of the Company, whether it be power station equipment, transmission lines, tracks, poles, wires, equipment, or cars. So the engineering and supervision which inhered in the original property would disappear absolutely when the property disappeared. Obviously, therefore, it is just as essential to apply the depreciation allowance to the engineering and supervision item as to the physical property itself.

Similarly with respect to the law expense. When property is reconstructed or rebuilt, the same kind of legal expenses are incurred as when it is originally constructed. In one case it is paid out in a lump, and in the other case it is spread over a longer period, but it is paid, nevertheless. If a utility is acquiring real estate or right of way, if it is making a contract for the construction of a power plant, or purchasing on some deferred payment plan a large amount of equipment of any kind to replace property that is going out of service, legal expenses are a normal and usual part of such activities. When the property with respect to which such legal expenses were incurred goes out of service, the value of the legal services which were rendered in connection with that property disappears at the same time. In other words, the legal expense inheres in the property, and as the property depreciates, the legal expense rendered in connection with it depreciates, and at the same rate.

The next overhead is interest during construction, which is an allowance for the money tied up in property during the construction period. The property, because of the very fact that it is not entirely completed, is not in a position to earn money. When the property is originally constructed, the interest during construction charge is incurred all at one time. When the property is replaced by piece-meal reconstruction, the charge occurs exactly the same, only it is spread over a longer period, but money has to be tied up while individual units of the system are being replaced just as much as it did when the property was originally constructed. The original interest during construction incurred when the property was originally constructed depreciates with the property, and at the same rate, and when the property disappears, the interest during construction which was allowed in connection with the construction, disappears also. The depreciation allowance should be applied to it, even as it is applied to the physical property.

So also with the next overhead, injuries and damages during construction. Such expense is an unfortunate but necessarily occurring expense in construction work. When the property is reconstructed obviously the same injuries and damages will occur again. Consequently when the property in connection with which the injuries and damages were incurred depreciates, the overhead depreciates with it.

Without going into the matter in any more detail, the same thing precisely occurs in connection with taxes during construction and organization and business management, both of which are clearly incurred in the construction period and relate to the property as constructed.

The necessary result of this examination of the nature of the overheads is that they are inseparably connected with and dependent upon the existence of the physical property in connection with which they are incurred. This being the fact, there is no logic in excluding the overheads from the base value to which the agreed percentage for determining the annual depreciation allowance is to be applied.

Accordingly, it appears that the reasoning of the Court which led it to exclude all overheads from the base value of the depreciables, in determining the depreciation allowance, is entirely erroneous, and that the Master was correct in including overheads therein.

As said above, the process by which the Court eliminated, in addition to the overheads, sufficient depreciables to bring the base depreciable value down to $1,131,000, as the Court does in its opinion on rehearing (Record, p. 263) can not be determined from the opinion, except by guess and supposition.

Since the conclusion of the Master, that the depreciation allowance should be based on the present fair value of the depreciable property of the plaintiff includes overheads, and seems to be a fair and reasonable treatment of the matter, we urge upon the Court the adoption of the Master's result of an annual allowance of $66,824.40, and the disallowance of the erroneous conclusion of the Court that the annual depreciation allowance should be $45,240.

4. THE AMOUNT PAID BY THE PLAINTIFF AS FEDERAL INCOME TAXES DURING THE TEST PERIODS SHOULD HAVE BEEN INCLUDED IN OPERATING EXPENSES IN TESTING THE CONSTITUTIONALITY OF THE ORDINANCE.

No dispute is made in this case but that ad valorem taxes assessed by the city, county and state should be included in operating expenses in testing the constitutionality of the ordinance here attacked. It seems to us to be entirely illogical to apply a different rule to income taxes from that which is applied to such other taxes. Income taxes are different from the city, county and state taxes only in respect of the subject of assessment. The purpose for which taxes are paid to the city, county and state is no different from the purpose for which the income taxes are paid to the Federal government; in both cases the object, from the point of view of the governmental body, is to obtain money with which to defray their respective governmental expenses. Does the mere fact that the Federal government assesses its tax in this case on the income of the plaintiff, form a proper basis for the distinction which the Court attempts here to draw between these classes of taxes? In other words, does the distinction in the subject of the assessment warrant a distinction being drawn between the amounts of taxes paid, so that, as to the city, county and state taxes, they may properly be included in operating expenses in testing the constitutionality of an ordinance, but as to Federal Income Taxes they may not be so included? If they are not so included, the result inevitably is that the taxes must be paid by the plaintiff out of the very fair return as to which the states and their sub-divisions are, by the Fourteenth Amendment to the Constitution, denied the right, by the regulation of rates, to reduce below a fair rate.

If in applying the constitutional rule, the amount of fair return is to be reduced by the amount of the income taxes (and if the amount is not allowed in operating expenses, there is certainly no other place to allow it except out of the fair return), the result is that public utilities are granted protection to a fair return by one section of the Constitution, and then to the extent of the income taxes assessed under another section of the Constitution, forthwith deprived of a portion of that very fair return so protected. In other words, the result contended for seems to lead to a logical absurdity.

There is no doubt, of course, but that under the Income Tax Amendment and the income tax law, public utilities may properly be, as they are, required to pay income taxes. Public utilities will of course have to pay income taxes if they have any net income whatsoever. It certainly does not follow, however, because they must pay income taxes, that they should pay them out of the fair return protected by the Fourteenth Amendment. Unless that fair return is absolutely net, free and clear, to the utility as a return upon its property, the constitutional guaranty becomes, to that extent, a meaningless phrase.

When this Court, in its wisdom, established the fundamental principle that a corporation devoting its property to the public service could not by regulation by the public authorities be deprived of a fair return upon the present fair value of the property so dedicated, it undoubtedly meant and intended that that fair return should be net to the corporation. If when the test is applied, taxes of any kind are omitted so that the corporation is required by law to pay out any substantial portion of that net return, it is the same in effect and substance as though it had never received the return.

The principal is the same as that announced by this Court in *Evans* v. *Gore,* 253 U. S. 245, where it was held that the salary of a Federal judge could not be diminished by the imposition of a Federal Income Tax, on the ground that a provision of the Constitution expressly provides that the compensation of judges shall not be diminished while they hold office. By a parity of reasoning the fair return which, by the decisions of this Court in its construction of the Fourteenth Amendment to the Constitution, is protected against rate regulations by the public authorities, is likewise not subject to diminution by income taxes paid by a public utility as an incident to its operations. So far as we have discovered the question whether income taxes should be included in operating expenses has been passed upon by only one Federal judge. That was Judge Learned Hand in the case of *Consolidated Gas Company* v. *Newton,* 267 Fed. 231. In that case Judge Hand takes the same view for which we are here contending.

Hair splitting discussions by doctrinaires as to the nature of income taxes which lead to the conclusion that public utilities should be deprived of a portion of their fair return in paying the taxes may be interesting, but they are certainly not good sound common sense.

Practical common sense dictates that all necessary expenses and all legally assessed taxes, without exception, shall be deducted in testing the question whether rates attacked are constitutional or unconstitutional.

Accordingly in this case the amount of approximately $8000. paid for income taxes during the test period for the twelve months ending June 30, 1920, were properly excluded by the Master from earnings in making the constitutional test, and the Court erred in refusing so to do. The method used by the Master should be sustained and that adopted by the Court should be disapproved.

5. THE ACTUAL TEST PERIODS AS TO WHICH EVIDENCE OF ACTUAL OPERATIONS WAS INTRODUCED SHOULD HAVE BEEN USED IN TESTING THE ORDINANCE.

At the hearing before the Court evidence was introduced of the financial operations of the Company for the period of six months from June 30, 1920 (the last date upon which operating figures were introduced before the Master) to December 31, 1920. These figures added to the figures for the previous six months' period which had already been introduced in the hearings before the Master, would have given an actual test period of twelve consecutive months ending December 31, 1920, the results of which are set forth in the tabulation contained in the statement of facts. The Court, however, finding therefrom that the earnings for the last six months of the year ending December 31, 1920 were somewhat larger than for the first six months of that year, took the earnings for the last six months' period, namely, $309,000, and multiplied them by two and by this process determined that the plaintiff was earning revenue at the rate of $618,000 per annum, as against a revenue of $548,477 for the year ending June 30, 1920, the test period taken by the Master. Then the Court, in making its calculations, used with the gross earnings thus determined the operating expenses for the year ending June 30, 1920, without making any allowance for the actual increase in operating expenses for the six months' period from June to December, 1920. It goes without saying that any such increase in business as the Court seems to assume will be done during the year for which it takes six months' actual figures and six months' assumed figures, could not be done without a considerable increase in operating expenses over those incurred in a previous year during which very much less business was transacted. It is not surprising, therefore, that the Court, on this hybrid calculation, comes out with a net revenue which would have approximated, if it had been earned, 9½ per cent. on $1,500,000, which value the Court afterwards admitted to be erroneous and too small by $126,000.

The above described method used by the Court is illogical, unreasonable and productive of a grossly inaccurate conclusion as to the effect of the ordinance complained of upon the net earnings of the plaintiff.

(a) So unreliable are even careful estimates of earnings and operating expenses that they should never be used in any case where actual experience is available.

The case at bar is a case which comes before the Court on an actual test period. This plaintiff submitted to the five cent fare required by the ordinance of June 5, 1919, immediately upon its taking effect, and it took effect immediately upon its passage. This it did in order that it might make a fair test of the fares complained of, and it did not file the bill in this case in the District Court for nearly a year thereafter, so that when the case was heard by the Master the plaintiff had been operating under the fares complained of for a period of sixteen months. Also, before the case was concluded before the Court an additional six months' operating experience was put in evidence. In such a case, it seems absurd on the face of it to attempt to determine the plaintiff's constitutional rights by the use of any except the actual figures gained through such actual operating experience. It is universally recognized that the problem of estimating earnings and expenses of a public utility is complicated and involved, and accordingly difficult of correct solution. This Court itself has frowned upon such estimates, and always prefers actual test periods where possible. In this case, where actual test periods exist, they should be used, and no attempt made to resort to estimates. It should be noted, however, that there is not before the Court any estimate of the earnings for the six months' period ending June 30, 1921. The plaintiff in this case made a considerable sacrifice in waiting to file its bill until it had tested out in actual experience the fares complained of. It certainly would be doing this plaintiff a great injustice, under such circumstances, to test out the ordinance on any basis except that of actual experience.

It is a fact to be noted in this connection that the very court which decided this case at about the same time handed down an opinion in the case of Brush Electric Company v. City of Galveston, and in this opinion denied an injunction against a rate ordinance to the plaintiff in that case, on the ground among others that it had not tested the ordinance under actual operating experience. In that case, therefore, the judge of the lower court denied relief because they did not test out the ordinance in actual practice, and in the case at bar where there were two twelve months' test periods, it refused to confine itself to those periods.

(b) Determining earnings for six months in the future by multiplying those of the last six months by two is the purest guess work and cannot even approximate accurate results.

There are many reasons why the method of determining earnings pursued by the Court for the projected period of six months from December 31, 1920, cannot, by any possibility, be even approximately accurate. For example, the plaintiff showed to the court by an exhibit which is contained in the record (Record, pages 172, 173) that by far the larger actual gross and net earnings had been received in the last six months of each calendar year than in the first six months from the year 1912 to the year 1920 inclusive. Larger earnings for the last six months of the year are a normal experience in the plaintiff's business. This is due to the fact that Galveston Beach is a popular summer pleasure resort and the heavy traffic to this resort comes in the last six months of the year, beginning with July 1. The last six months of the year also contain the so-called holiday peaks, when traffic is always larger during the Thanksgiving and Christmas holidays. These two reasons make it impossible to determine the earnings for the period from January 1 to June 30 of any year by taking the same amount of gross earnings which were earned in the preceding six months. Accordingly, the determination of the court of gross earnings in the manner which was used is absolutely misleading and unreliable in that it produces figures larger than the actual operating experience would have shown, due to the facts already mentioned.

If the court had desired to ascertain the probable earnings for the six months' period from January 1, 1921 to June 30, 1921, the problem of making such an estimate should have been delegated to somebody competent from experience and training to handle it, and familiar with all of the peculiarities and history of the plaintiff's business. As before pointed out, even such a careful estimate by experienced persons familiar with the peculiarities of the business of the company would have been far from satisfactory for testing a company's constitutional rights where actual test periods were available. Such an estimate would, however, have been greatly preferable to the method used by the court in this case, namely, a pure guess at what the gross earnings of the company would be for a time in the future by projecting into it a period from the past, without making any allowances or adjustments of any kind for things which would inevitably change the calculation very materially.

(c) Finding earnings available for return by deducting operating expenses for one period from gross earnings for another period produces a grossly inaccurate result.

We have already shown that the method used by the Court in determining the gross earnings for the six months ending June 30, 1921 would necessarily lead to inaccurate results and give a figure which was entirely too large.

If this were the only inaccuracy it would be serious enough, but the Court then proceeds to arrive at a determination of net earnings available for return by deducting from gross earnings, determined in the manner mentioned, the operating expenses of a prior period, namely, the year ending June 30, 1920, when far less business was done than is reflected in the excessive gross earnings determined by the Court, and during which period also the maintenance was admittedly very much less than during the last six months of the year 1920. and very much less than it would have been in the first six months of 1921. In addition, it appears that during the year ending June 30, 1920 there had been two increases in wages, approximating ten per cent. each, neither of which are fully reflected in the operating expenses for the year mentioned, since they occurred during the year, one during the first quarter and the other during the third quarter. It is obvious that taking the expenses for such a year and applying them against the earnings for a later year, without making allowance through the full twelve months' period for the increases in wages, is sure to give operating expenses which are very much too small. Here again what the Court should have done, if it wanted an estimate made of what the operating expenses would be likely to be for the year ending June 30, 1921, would have been to request some one familiar with the Company and its business, capable of making proper allowances for material variances, to have estimated them. If this had been done, the allowances for seasonal fluctuations and expenses, the allowances for the increase in wages mentioned, and allowances for the numerous other things which would be sure to affect the calculation, would have been made.

A Federal Court testing the constitutionality of an ordinance should take either an actual test period, under actual operating conditions, with the rates complained of actually in force, or it should take gross earnings and expenses estimated on a rational and sound basis, having due regard to the business in question and its peculiarities, so that proper allowances could be made therefor. We are confident that this Court, in testing the constitutional rights of this plaintiff, with actual test periods of operation under the ordinance complained of actually in evidence, will not permit its rights to be determined by guess work and speculation. No one has suggested in this case, except the Court through the process just mentioned, that the periods taken for the test periods were not entirely adequate to reflect the normal operating conditions of the plaintiff.

It is regretted that the rule which forbids the introduction of evidence on the argument in this Court prevents putting before this Court the actual operating experience for the six months guessed at by the Court, so that the marked contrast between the truth and the guess could be revealed.

CONCLUSION

DISCUSSION OF FAIR RATE OF RETURN TO BE APPLIED IN TESTING THE CONSTITUTIONALITY OF THE ORDINANCE, AND EFFECT OF DECISION IN THIS COURT OF CONTESTED POINTS.

1. FAIR RETURN ADMITTED ON THE RECORD TO BE 8 PER CENT. PER ANNUM.

Under the new economic conditions with respect to annual returns upon capital brought about by the war, referred to by this Court in the case of *Lincoln Gas and Electric Company* v. *Lincoln*, 250 U. S. 256, in which case it is said:

> "It is equally well known that annual returns on capital and enterprise the world over have materially increased so that what would have been a proper rate of return for capital invested in gas plants and similar public utilities a few years ago, furnishes no safe criterion for the present or for the future."

plaintiff contended before the Master for a fair rate of return of not less than 8 per cent. This contention was based on the full evidence on this point contained in the record. This evidence consisted principally of an exhibit showing that the predominant well-secured mortgage and interest rate in the City of Galveston at the present time is 8 per cent. with some loans so secured commanding as high as 10 per cent. (plaintiff's exhibit number 3, Record p. 137); the agreement that the commercial rate of interest in Galveston for bank loans on sixty day to six months commercial paper was 8 per cent. (agreement between counsel, Record p. 130); and evidence that corporations borrowing money were paying therefor, depending upon the security back of the loan, from 7 to 10 per cent. per annum; evidence that several strong public utilities in Texas had recently borrowed money on their notes in considerable amounts at a basis more than 10 per cent. (Record p. 74); and evidence that this plaintiff in 1919 borrowed $100,000 and was paying for the use of such money, including direct interest charges and indirect expenses incident to the transaction, 9.3 per cent. (Record p. 71).

On this evidence the Master found:

> "*It is admitted* that complainant is entitled to earn 8 per cent. per annum on the fair value of its plant." (Italics ours). (Record p. 190).

It is submitted, therefore, that this case must be decided by this Court on the basis of the plaintiff being entitled to a fair return of not less than 8 per cent. per annum on the present fair value of its property.

2. EFFECT OF THE DECISION OF THIS COURT.

Assuming only that this Court will test the ordinance of June 5, 1919, on the basis of the actual operating experience of the plaintiff, that ordinance is clearly confiscatory.

This is true because when the calendar year 1920 is taken as the test period and the actual amount expended for maintenance is allowed, the net return to the plaintiff is only 5.4 per cent. on the lower Court's value, using in determining that percentage the lower Court's depreciation allowance and the lower Court's method of not deducting income taxes. And 5.4 per cent. is plainly inadequate, since the admitted fair return is 8 per cent.

If in addition, this Court adopts the Master's depreciation allowance, the return on the lower Court's value becomes 4.1 per cent.

If in addition, this Court holds that income taxes should have been deducted from gross earnings in arriving at net earnings, the return on the lower Court's value becomes 3.6 per cent.

If in addition, the value of the plaintiff's property is taken at any greater value than that allowed by the lower Court, the return becomes only 2.7 per cent. or less.

It is submitted that the points argued herein show plain error and that on a fair test of the ordinance net return to the Company on the present fair value of its property is less than three per cent. per annum; and accordingly from every sentiment of fairness and justice, the ordinance complained of should be enjoined as a violation of the plaintiff's constitutional rights, as a taking of property without due process of law within the meaning of the Fourteenth Amendment.

Respectfully submitted,

William E. Tucker,
Solicitor for the Galveston Electric Company, appellant.

DEC 5 1921
WM. R. STANSBUR
CLERK

IN THE

Supreme Court of the United States

October Term, 1921

No. 455

GALVESTON ELECTRIC COMPANY, *Appellant*

vs.

CITY OF GALVESTON, ET AL., *Appellees*

On Appeal from the District Court for the Southern District of Texas.

BRIEF FOR APPELLEES

Frank S. Anderson,
City Attorney

James W. Wayman,
Attorneys for Defendants

CLARKE & COURTS, GALVESTON

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On Appeal from the District Court for the Southern District of Texas.

BRIEF FOR APPELLEES

STATEMENT OF FACTS

In this brief appellant will be referred to as plaintiff and appellees as defendants.

We will take it for granted that the Master's report (Record, p. 186) and the opinion of the trial court have been read (Record, pp. 210-236). The Court's opinion is also reported as Galveston Electric Co. vs. City of Galveston, 272 Fed. 147.

This statement is made to supplement and, in a measure, explain more fully the statement of facts in plaintiff's brief.

This suit was filed on May 8, 1920 (Record, p. 3). The Master heard the evidence during October, 1920, and filed his report on November 4, 1920 (Record, p. 199). The trial court decided the case, on exceptions to the Master's report, on February 10, 1921 and plaintiff's motion for a rehearing on April 27, 1921 (Record, p. 231). The decree was filed and entered March 11, 1921 (Record, p. 195). The evidence in respect to earnings adduced at the hearings before the Master was for the period ended June 30, 1920. But before the case was decided by the trial court, plaintiff's operating experiences were brought down to January 1, 1921 (Record, pp. 134-5), and further evidence heard as to the trend of prices (Record, p. 131); and on this evidence, in addition to that heard by the Master, the Court decided the case. Between June 30, 1920 and January 1, 1921, wide changes in prices and economic conditions had taken place. The index prices furnished by the Department of Labor show that the peak was reached in May, 1920, when the index number was 272; for December, 1920 it was 189 (Record, p. 175). Besides, plaintiff's gross revenue from operations had materially increased, 1920 being larger than for 1919 (Record, p. 181) and 1919 larger than for any previous year (table between pages 148 and 149). The trial court, therefore, decided the case under the influence of price levels and conditions that differed from those that the Master was governed by. No doubt, judicial knowledge can and will be taken of the more radical changes in price levels and conditions that have arisen since the trial court decided the case.

This street railway system was started in 1881 and electrified about 1890. It was badly damaged in the hurricane of 1900 and was sold by a receiver at a foreclosure sale in December, 1900 to Chas. F. Hotchkiss. It then passed to Galveston City Railway Co., from whom plaintiff purchased it in 1905 as a going concern. Plaintiff was chartered in that year (Record, pp. 105-6).

The franchise under which plaintiff is operating was originally granted to Hotchkiss in 1900 and provides that "the rate of fare shall not exceed 5 cent for each person over 5 years of age" (Record, p. 20). Defendants claimed that this engendered a binding contract not to charge more than a 5-cent rate of fare (Record, p. 62), but abandoned the contention following this Court's decision in San Antonio vs. San Antonio Public Service Co., 65 Law Ed. 518.

Although the agreed, undepreciated record cost of the properties (Record, p. 135), and an estimate by plaintiff's engineer of the cost of reproduction, new, as of June 30, 1920 (Record, p. 163), were in evidence, neither has been adopted. The historical reproduction cost, agreed upon by the engineers, has been taken by both sides as the starting point in determining the value to be placed on the properties. And since plaintiff has raised a question as to the construction that should be put on this agreement in the argument of its assignment of error relating to going value, we set out the agreement in full:

> "It is hereby agreed between Henry Exall Elrod, representing the City of Galveston, and Halbert P. Gillette, representing the Galveston Electric Company, for the purposes of the case now pending between said City and said Company that the estimated undepreciated cost of reproduction of railway property of said Company on the historical basis, exclusive of franchise value, going-concern value (development cost), bond discount, and brokerage fee, is One Million, Seven Hundred and Twenty Thousand Dollars ($1,720,000.00) as of June 30, 1920. This estimate is made as nearly as possible on the basis of prices which were in effect at the time of construction of the component elements of the property, except for lands and right of way, which are estimated at their present value.
>
> "The above stated estimate of $1,720,000.00 includes a total of $202,000.00 of overhead charges to cover the following items: Engineering and Superintendence, Law Expenses, Interest during Construction, Injuries and Damages

> due to Construction Work, General Expense and Organization Costs, but exclusive of Bond Discount and Brokerage Fee.
>
> "The estimate includes $136,281.00 as cost of grade raising, $2,100.00 as cost of rails on the Fort Crockett Loop Line (which has been out of service), and $2,075.00 as estimated value of land in material yard at 40th St. and Ave P½—as to each of which each of the signers hereto reserves the right to make such disposition as he may deem proper.
>
> "Included in the total estimate of $1,720,000.00 is power generation and transmission property totalling $186,000.00 allocated to railway use from the total of such property owned by the Company,—as to which each of the signers hereto also reserves the right to make such disposition as he may deem most appropriate." (Record, p. 135).

This agreement was made after checking and appraising an inventory which Mr. Gillette, engineer for plaintiff, with his assistants, had prepared (Record, p. 94). A general summary of the inventory follows:

	Plant Account	Estimated Original Cost
1.	Engineering & Superintendence	$ 59,879
2.	Right of Way	1,600
3.	Other Land	13,072
4.	Grading	176,810
5.	Ballast	47,475
6.	Ties	69,765
7.	Rails, etc	182,307
8.	Special Work	85,187
9.	Underground Construction	
10.	Paving	167,552
11.	Track Laying, etc	98,343

12.	Roadway Tools	2,000	
13.	Tunnels		
14.	Elevated Structure		
15.	Bridges, etc	31,115	
16.	Crossings, etc		
17.	Interlocking, etc		
18.	Telephone & Telegraph Lines		
19.	Poles & Fixtures	20,366	
20.	Underground Conduit		
21.	Transmission	7,525	
22.	Distribution System	45,833	
23.	Dams, Canals, etc		
24 & 25.	Power Plant & Sub-Station Bldgs	34,427	
26, 27 & 28	Other Bldgs	54,537	
29.	Docks and Wharves		
30 & 31.	Power Plant & Sub-Sta. Equipment	114,788	(c)
32.	Shop Equipment	10,518	
33.	Park Property, etc		
34.	Cost of Road Purchased		
35, 36, 37 & 38.	Cars & Car Equipment	231,000	(d)
39.	Miscellaneous Equipment	4,165	
40.	Law Expense	7,029	
41.	Interest	44,179	
42.	Injuries, etc	11,492	
43.	Taxes	7,363	
44.	Miscellaneous	73,281	
	Undistributed Items		
45.	Brokerage Fee	67,078	
47.	Materials & Supplies	33,000	
48.	Working Cash	60,000	
	(Record, pp. 153-4)	$1,761,686	

This general summary, it will be noted, has included in it brokerage fee, $67,078.00, which was excluded by the agreement. Although this would leave the total some less than the value agreed upon, the engineers fixed $1,720,000.00 as the value, exclusive of bond discount and brokerage fee, after they had checked and appraised the inventory (Record, p. 94). In the evidence the engineers rounded out the item of engineering and superintendence, $59,879.00, to $60,000.00. An analysis of some of the accounts constituting the above general summary follows on pages 154 to 162 of the Record. From this analysis it appears that items are included which have been used by the Master and by the Court in their set-ups, as follows:

Overheads		
Engineering and Supervision	$ 60,000.00	
Law expense	7,029.00	
Interest during construction	44,179.00	
Injuries and damages during construction	11,492.00	
Taxes during construction	7,383.00	
Organization and business management	73,281.00	
	$203,344.00	rounded out
by the agreement to		$202,000.00
Working Capital		
Working cash	60,000.00	
Material & supplies	33,000.00	$93,000.00
Real Estate		
Rights of Way	20,283.00	
Real Estate	38,553.00	$58,836.00
Grade Raising	$136,281.00	
Rounded to		$136,000.00

The engineers agreed upon the overheads as a percentage of the basic valuation, exclusive of the land, the $202,000.00 being 14% (Record, p. 106).

In estimating the amount of accrued depreciation in the properties, Mr. Gillette, for plaintiff, deposed that he had used the "Inspection Method" and fixed accrued depreciation at $390,000 (Record, p. 99), while the City's engineer, Mr. Elrod, testified that he had used the "Age and Life Method," and in connection therewith had inspected the properties and thereby fixed accrued depreciation at $505,000.00 in round numbers (Record, p. 121).

Both the Master and the trial court adopted Mr. Gillette's views, however, and fixed the accrued depreciation, upon the basis of the agreed, historical, reproduction cost, at $390.000.00.

The following set-up shows how the trial court arrived at the value for rate-making purposes finally adopted on motion for rehearing:

Agreed value of	$1,720,000.00
Less property not used or useful	4,175.00
Base Value	$1,715,825.00

The items embraced in the foregoing figure, on which the increase of 1/3 was not allowed, are:

Working cash, material and supplies	93,000.00
Real Estate and rights of way (estimated at present value in the agreement)	58,836.00
Additions to properties made after war prices obtained and therefore not appreciated	131,000.00
Grade Raising plus engineering	142,000.00
	424,836.00
Base Value	1,715,825.00
Less items not appreciated	424,836.00
Balance (including overheads)	1,290,989.00

Add 33 1/3%	430,329.00
	1,721,318.00
Add items not appreciated	424,836.00
Historical cost appreciated	2,146,154.00
Less accrued depreciation $390,000.00 increased by 33-1/3% ($520,000.00)	520,000.00
Rate base	$1,626,154.00

The trial court, either through errors in calculation or by the use of round numbers in some instances, has the figure in the opinion $1,626,061.00.

The Master declined to allow the 33 1/3% appreciation upon the overhead items of law expenses, interest during construction, injuries and damages during construction, taxes during construction and organization and business management, but did appreciate engineering and supervision The trial judge appreciated all of these overheads by 33 1/3%.

As stated in appellant's brief, the parties virtually agreed that the depreciation annuity should be at the rate of 4% per annum. The trial court, as we construe the opinion, arrived at the amount, to which the depreciation annuity of 4% should be applied, by deducting from the value of $1,626,061.00 he placed on the properties, the items found by him not to be subject to depreciation; namely, overheads, working capital, rights of way and real estate and grade raising; that is to say, he deducted from the rate base of $1,626,061.00

Overheads, $202,000.00 appreciated 1/3, or	$269,333.00	
Real estate and rights of way	58,836.00	
Working cash, material and supplies	93,000.00	
Grade Raising	142,000.00	563,169.00
		$1,062,892.00

This total is $68,108.00 less than the figures of $1,131,000.00 the trial court fixes in his opinion, a difference we are unable to account for unless he failed to deduct the amount he had allowed on rehearing as appreciation in value of overheads. This was one-third of $202,000.00, or $67,333.00.

The trial court allowed, on motion for rehearing, $142,000.00, including engineering, for grade raising. The inclusion of this amount was then and is now opposed by defendants.

The following table shows in column "A" the annual gross income from 1906 (Record, table between pages 150 and 151); column "B," the annual maintenance expenditures (Record, p. 168); column "C," the annual operating expenses exclusive of maintenance (Record, table between pages 150 and 151, maintenance deducted from railway expenses); and column "D," the yearly average price index numbers from the Department of Labor (Record, p. 175):

	A	B	C	D
Year	Gross Earnings	Maintenance	Operating Expenses Exclusive of Maintenance	Index No
1906	$275,359	$35,137	$131,191	
1907	314,495	40,523	144,195	
1908	290,505	37,867	147,513	
1909	303,590	42,841	145,695	
1910	302,359	44,449	152,670	
1911	369,179	42,334	161,844	
1912	410,549	48,851	163,261	
1913	498,071	49,641	192,548	100
1914	510,693	47,651	185,956	100
1915	486,521	41,935	186,010	101
1916	421,841	31,319	179,771	124
1917	374,296	33,983	186,495	176
1918	428,996	40,884	245,833	196
1919	519,034	64,108	294,218	212
1920	581,418	90,861	329,411	243

So that the relation between gross revenue and operating expenses, exclusive of maintenance, and maintenance may be visualized, there is attached between this and the next page a chart, heretofore filed with the trial court, which shows from 1905 to 1920, inclusive, the gross receipts, operating expenses, exclusive of maintenance, and maintenance.

The average annual expenditure for maintenance for the 19½ years ended June 30, 1920 was $42,000.00 and for reconstruction, replacements and abandonments $21,300.00 (Record, p. 146).

In calculating development cost the Wisconsin Method was used (Record, p. 104).

The substantial differences between the Master and the trial court are:

(a) The trial court, in valuing the properties, appreciates the overheads; the Master declined to do so.

(b) The trial court allowed no separate item for going value (development cost); the Master allowed $520,000.00.

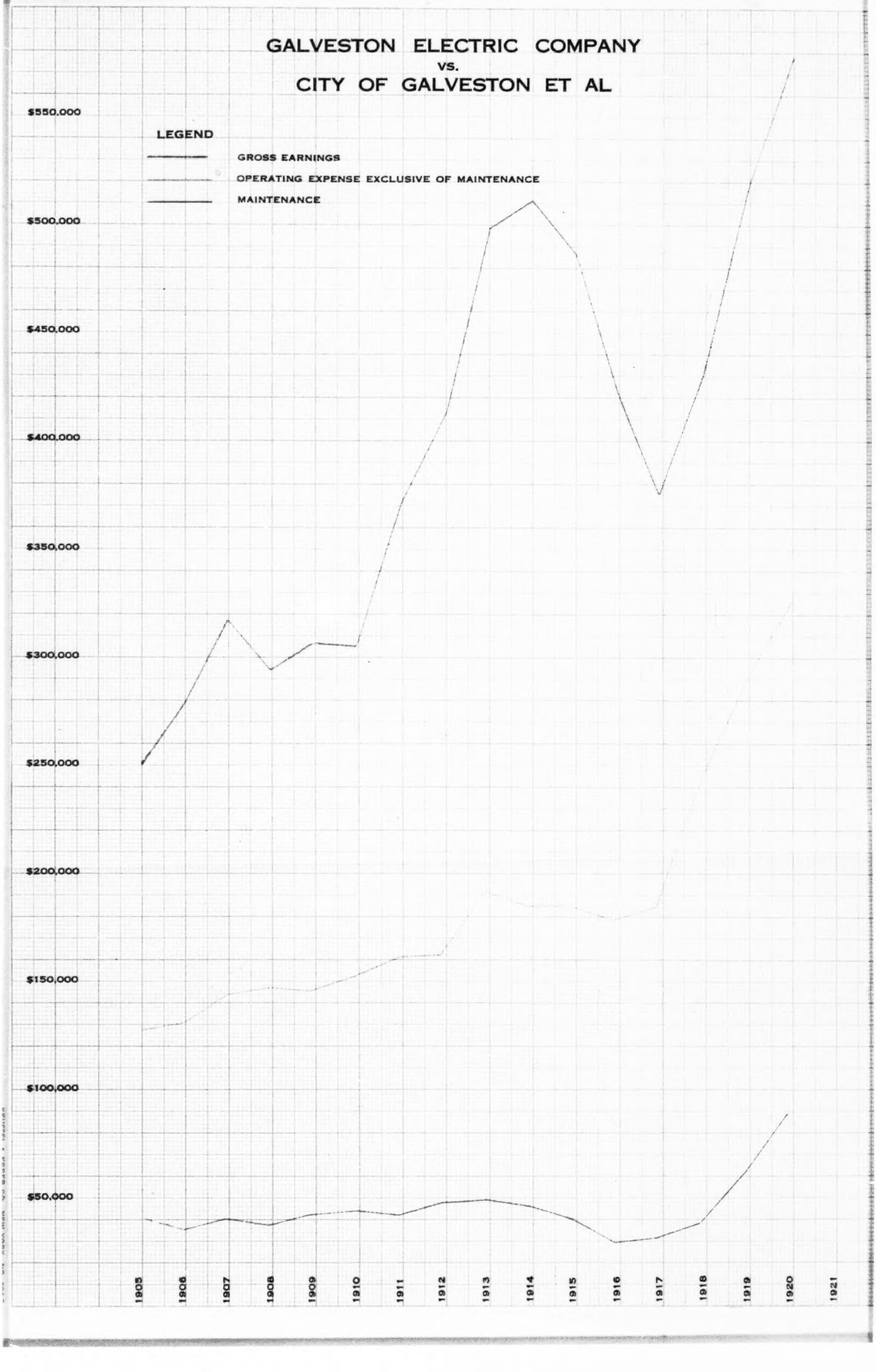
(c) The trial court, in estimating the net earnings available for a fair return, allowed for maintenance $70,000.00; and the Master, $80,322.00.

(d) The trial court excluded about $8,000.00 for income taxes, which the Master allowed.

(e) The trial court declined to permit brokerage fees ($67,078.00) to be capitalized; the Master allowed this item.

(f) The trial court, in arriving at the net earnings available for a fair return, estimated the gross revenue would be larger for 1921 than for 1920. The Master used gross revenue for the year ended June 30, 1920, the last six months of 1920 not having been in evidence when he made his report.

(g) The trial court, in estimating net earnings available for a fair return, allowed for annual depreciation at 4% on $1,131,000.00; the Master allowed 4% on $1,670,610.00, which latter figure included the $520,000.00 allowed for going-concern



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value, to offset accrued depreciation. As the amount allowed by the Master for development cost was approximately the amount of the accrued depreciation, he made one offset the other (Record, p. 189).

ARGUMENT

ISSUES RELATING TO VALUE OF PROPERTY

1. NO SEPARATE AND DISTINCT ALLOWANCE SHOULD HAVE BEEN MADE FOR GOING-CONCERN VALUE.

The evidence upon which it is sought to have the sum of $520,000.00 added to the value of the property is the application to the financial history of the Company of the Wisconsin Method of determining going-concern value. The measure of such value under this method is said to be the amount an investor has had to sacrifice to bring the business up to its present condition of operation. For instance, to determine the amount to be added to the record cost of the properties under this method, the experts took the recorded value of the Company's properties from 1881 to June 30, 1920, inclusive, as the basis for calculations; they used 8% as the rate of fair return, deducted 4% for annual depreciation, and added the amount of depreciation thus deducted to the amount of fair return to create a depreciation reserve; then added to the property values a sum equal to 10% of the annual gross earnings for working capital. The amounts equal to the deficits of fair return over actual returns were capitalized at the rate of fair return and compounded annually. The difference between the total compounded deficits and the total compounded surpluses is the amount, or measure, according to this method, of going-concern value.

Over different periods of the 39 years of the operation of the properties by plaintiff and its predecessors in title, the deficits so calculated exceeded the surpluses in amounts ranging from $2,000.00 downward. It was frankly admitted by plaintiff's expert that it would be exorbitant to allow the largest of these estimates, but to what extent such estimates were, in his judgment, excessive was not indicated. Neither does plaintiff in its brief propose a rational application of the method to the particular facts and circumstances surrounding the properties and their financial history. They merely submitted the calculations to the Master and left it to him to make the application, without proposing any rule by which they should be applied, and without a suggestion of the limits to which they desired the Master to go.

Surely if such formula is entitled to consideration, some logical and reasonable rule should be furnished for guidance in applying it. If the method were strictly applied, an investor who had received a fair return or more from a utility would be precluded from an allowance for going value; while an investor in an unprofitable concern would be allowed therefor, according to the past misfortunes.

The Master evidently took the admission, that the method as applied to this case resulted in an exorbitant allowance, at full value, as he calculated the amount he allowed by taking one-third of the value he had placed on the physical properties. He did what Mr. Gerard C. Henderson said in an article on "Railway Valuation and the Courts," XXXIII. "Harvard Law Review," 1037, that expert appraisers do, when he observed:

> "* * * It is not surprising to find that when expert appraisers report the value of a railroad's 'good will' or of its 'strategic location' or the value arising from the fact that it is a 'going concern' they are never able to indicate the rational process by which the result is reached. They almost always resort to a general and inarticulate exercise of judgment."

Defendants submit that no separate and distinct item should be allowed for going value when a public utility has been valued upon the reproduction method as one in successful operation, with a reasonable allowance added for working capital and the overheads incident to the construction, organization, and putting of the plant into successful operation; that an allowance of these takes into consideration the fact that it is a going concern.

By way of illustration the differences between plaintiff and defendant can be shown. Let us assume that the present plant is for a moment blotted out and promoters of a corporation, with the necessary capital, or ability to command it, have been granted a franchise by the City of Galveston for the construction and operation of a street-car system. Since it is a well-known fact that street cars are an essential in a city of this size, passengers would be available as soon as the plant is in successful operation. The capital required would be the sum necessary for the organization of the corporation, the construction of the plant, a sufficient amount of working capital, and the cost of putting the system into successful operation. If a plant similar to the one in question was reproduced, substantially the amounts allowed by the trial judge would be required; namely, the present cost of acquiring the physical properties, working capital and the overheads included. There would be (not counting the 33 1/3% increase allowed thereon) $60,000.00 for engineering and supervision incident to the construction of the plant: $7,029.00 for law expense; $44,179.00 for interest on the capital during construction; $11,492 for injuries and damages during construction; $7,383.00 for taxes during construction; and $73,281.00 for business management during the construction period, miscellaneous construction costs, and for the organization of an operating force of officers and employees; and $93,000.00 for working capital. With the expenditure of these sums, the concern could begin immediately to carry the passengers ready to be served; and if there were sufficient passengers paying the requisite fare, it would earn money on the investment from the time it began operating.

In fixing a rate of fare no difference would arise as to the value of such a plant because the City would allow all of the items going to make up the investment. Differences, though, would immediately arise should the promoters of the supposed corporation seek to have the City capitalize, in fixing the rate of fare, deficits from operations sustained by the persons and corporations who have operated the street-car system in Galveston for the past 39 years. The promoters would have to say that these deficits were due to causes that can not now be accurately shown; but it is known that some of it was occasioned by the hurricane of 1900 and, in a large part, to a failure to charge a sufficient rate of fare. The City would naturally answer that it was not concerned with what happened when Galveston was little more than a village and the street cars were operated by mules; that the city is now comparatively safe from hurricanes because of the building of the seawall; and that if the previous owners of the street-car system had deficits from time to time in operation it was their fault because they did not charge enough; but such deficits would not occur from now on, because a sufficient rate of fare would be fixed to give a fair return on the present amount of investment.

This crude illustration shows wherein plaintiffs and defendants differ. Plaintiff contends that a separate and distinct item should be allowed for the outlays and sacrifices incurred by plaintiff and its predecessors in bringing the concern up to its present status of successful operation. Defendants contend that the deficit occasioned by the causes that the record shows in a general way produced them, should not be taken into account in valuing the property for rate-making purposes.

There is a dearth of evidence as to what produced the early deficits. The hurricane of 1900, when more than 6000 people in Galveston lost their lives, with the consequent business depression that followed, was one of the factors. The failure to demand and receive a sufficient rate of fare in the past was, no doubt, another major cause. Bad management in the early days might have been still another cause. But regardless of the causes it is the contention of defendants that none of these losses should now be capitalized. Plaintiff seeks to have these capitalized, the amount to be measured by the Wisconsin Method.

Beyond the formative or construction period deficits or surpluses from operations are determined by factors such as the rate of fare charged, the strategic location, the manner in which managed, the extent of competition, the ups and downs that arise from unusual periods of prosperity and depression, casualties such as storms and earthquakes, and perhaps by other less important factors or infrequent happenings that might be suggested. Can it be that the presence or absence of these factors is to be the measure of going value? If so, it would be interesting to imagine the comparative results that would follow from the application of such a doctrine in determining the going value of the various utilities throughout the United States that have been built during the recent and past years.

A certain going value exists in every utility in successful operation apart from the deficits and surpluses from past operations, and this value is neither increased nor diminished by receiving more or less than a fair return on the fair value of the property devoted to the public use.

Certainly a utility would not be given a greater valuation because it had in the past exacted from the public more than a fair return; and it should not be permitted to capitalize its past misfortunes, even if due to the rate of fare received, when it is not shown that the public had forced it to charge rates that prevented it from earning a fair return. Its failure to exact an increase should be regarded as its fault. Plaintiff has never been bound to charge any certain rate of fare. San Antonio vs. San Antonio Public Service Co., 65 Law Ed. 518. It was apparently satisfied with its earnings from the time it took over the properties in 1905 and with them the Hotchkiss franchise granted in 1900, providing for not more than a 5-cent rate of fare. Therefore, we submit its failure to earn a fair return during the periods in which a part of these large deficits arose is its own fault in so far as the rate of fare was concerned. If plaintiff has the constitutional right to recoup past losses, then in cases where more than a fair return has been earned the public could for the same reason, penalize for the past charges.

Moreover, a large amount of the losses which plaintiff now seeks to have considered were not sustained by it, but by its predecessors in title. After the hurricane of 1900 the property was sold by a receiver at a foreclosure sale. It then passed to Galveston City Railway Co., from whom plaintiff purchased it in 1905 as a going concern, plaintiff Company having been chartered in that year. The early owners have taken their loss. We therefore submit it would be unjust for the present patrons to have losses not sustained by the present owners taken into consideration.

Plaintiff also urges that consideration in determining going value should be given to the fact that the City of Galveston is sometimes visited with hurricanes that cause damage to the property. Such an argument must proceed upon the theory that the public is, in effect, an insurer of a fair return even against storms. If such is the case, plaintiff should not seek to have its return fixed on the same basis with other business enterprises, but should be content with less. We submit that the storm risk is one that plaintiff assumed like every inhabitant of the city. "Railway Valuation and the Courts," XXXIII. Harvard Law Review, 902.

The case at the bar is much like Des Moines Gas Co. vs. Des Moines, 238 U. S. 153. The overheads allowed in each were substantially the same. In the Des Moines Case they amounted to 15%, and in the instant case 14%. The Master in the Galveston Case added a separate item of $520,000.00 for going concern, and the Master in the Des Moines Case likewise added a separate item of $300,000.00, but later withdrew it. The reasons for adding such separate amounts were given by each as follows:

GALVESTON CASE	DES MOINES CASE
"*It seems to me that what a prospective purchaser should be willing to pay for a going concern whose physical properties are of the net worth of about $1,600,000.00, rather than build a similar plant, create the executive and operating organizations thereof,* with the accompanying expenses, hazards and losses, is a fair test of the going-concern value. Taking a plant which has been built up during the course of many years, now operating successfully, man and machine power harmoniously co-ordinated, fitted by past experience to local conditions, with the price of mistakes in construction and development already paid, it seems to me that it should have a going-concern value at least equal	"It may be asked upon what basis this amount is determined. The evidence, followed strictly, might require me to make it higher, could my mind rest satisfied that the 'going value' of this concern is worth more, but I cannot feel satisfied that such is the case, and regard $300,000.00 as every dollar it is worth over and above its physical value, and in my judgment, it is worth that much more than a plant would be that had to develop its business. But that would be much more rapid, in my judgment, than is estimated. *I think a purchaser would be willing to add this amount for its developed business, and that a seller would not be willing to sell unless he got that much more than its*

to one-third of its physical properties.

"In other words, it is my best judgment that the going-concern value of such a plant should be at least twenty-five per cent of the whole value. I have therefore allowed as going-concern value (or by whatever name called) one-third of $1,600,000.00."

Record, p. 189. (Italics ours).

physical value, but I could not give the mental process by which this conclusion is reached any more than a jury could do so, under like circumstances, but it is nevertheless my judgment under all the evidence in the case."

59 Law Ed. 1250 (Italics ours).

This $300,000.00 tentatively added was later excluded by the Master because of the decision in the meantime of Cedar Rapids Gas Light Co. vs. Cedar Rapids, 223 U. S. 665.

The City of Des Moines contended that when the overhead percentages had been added to the base cost of the property, the total figure thus arrived at took consideration of the fact that the plant was in successful operation. It was the contention of the Gas Company that with the overheads added the resultant figure merely represented the "bare bones" of the property, and that the $300,000.00 which the Master had actually found to be the going value must be allowed as a separate and distinct item. Mr. Justice Day, speaking for the Court, after holding that none of this $300,000.00 actually found to be the going-concern value existed in the valuation appealed from, held that all of this going-concern value was properly omitted, and further stated:

> "When, as here, a long established and successful plant of this character is valued for rate-making purposes, and the value of the property fixed as the Master certifies upon the basis of a plant in successful operation, and overhead charges have been allowed for the items and in the sums already stated, it cannot be said, in view of the facts in this case, that the element of going value has not been given the consideration it deserves, and the appellant's contention in this behalf not sustained."

tion it deserves, and the appellant's contention in this behalf is not sustained."

It has been stated by some that Denver Union Water Co. vs. Denver, 246 U. S. 178, can not be reconciled with the Des Moines Case. Mr. Gerard C. Henderson, in the article "Railway Valuation and the Courts," supra, tends to this view. We respectfully invite a consideration of this entire article, where the various decisions by this Court on going value have been analyzed and reviewed. In the Denver Case, a separate and distinct sum of $800,000.00 was added, but the properties had not been valued upon the same basis used in the DesMoines Case. We think a sound distinction lies in the fact that in the Denver Case, "in estimating the cost of reproduction, it was assumed that the work would be done under contract after fair competitive bidding, and with reasonable cost for engineering and superintendence in addition to the contract cost" (246 U. S. 183). Then, too, as Mr. Justice Pitney stated on p. 192, "The Master expressly declared that his detailed valuation of the physical property and water rights included no increment, because the property constituted an assembled and established plant, doing business and earning money; and a careful examination of his very elaborate report convinces us that this is true. The amount allowed by him on this account is not open to serious question from the standpoint of appellants." The overhead charges in the Des Moines Gas Co. Case were as follows:

> "1. Time and money expended in the promotion of the enterprise, in the organization of the company and interesting capital therein, including, also, legal expenses, obtaining the necessary franchise, as well as the cost of incorporating the company.
>
> "2. Then a competent engineer must be employed to prepare the plans and specifications for the plant, and make the necessary surveys, and when the work began, to superin-

tend the construction thereof, and see that it is done properly and according to plans and specifications. The successful operation of the plant depends largely upon its proper construction.

"3. :Then losses arising from accidents and injuries to workmen as well as to material during its construction, which is such an amount as the cost of insuring against such losses, which is between 1 and 2 per cent.

"4. Contingencies are such expenditures as arise from the lack of foresight and care preparing the plans and specifications. No matter how careful the engineer may prepare them, such expenditures invariably arise. Mr. Alvord testified that his allowance therefor would depend very much upon his knowledge of the engineer who prepared them, but that no matter who prepared them, they would invariably occur, and an allowance should be made therefor. The careful and thorough inventory in this case reduces very greatly the allowance therefor.

"5. The cost of administration, which includes the time and money expended by the parties who are engaged in the enterprise, purchasing the material, procuring the money for their payment as needed, and generally superintending the entire enterprise during the construction of the plant.

"6. It is estimated that it would take three years to complete the plant in question, and that at least one half of the time and money invested therein would give no return, and that a loss of interest would result therefrom, and that such loss would be included in the overhead charges." (59 L. Ed., p. 1251).

Evidently there were overheads included in the Des Moines Case that were not embraced in the Denver allowance for "Engineering and Superintendence," even though the plant had been constructed by a contractor. We submit "Engineering and Superintendence" allowed for covered only overheads, Nos. 2, 3 and 5, included in the Des Moines Case. The additional amount was not large, considering that only $800,000.00 was included in the entire value of $13,415,899.00.

Moreover, we have in the case at bar the specific finding of the learned trial judge, after a most careful and painstaking consideration of the case, that the value he placed on the property gave full consideration to the fact that it was a going concern.

We submit that it should be ruled, following the Des Moines Case, that where a utility is valued upon the basis of a plant in successful operation, upon the reproduction method, with due allowance for overheads, that no separate item should be added thereto for going value. If it is ruled that a separate item should be allowed, the further question is presented as to whether the Wisconsin Method should be given consideration in determining the amount.

We submit that plaintiff's argument (Brief, pp. 30-34) in support of the claim that no going-concern value was included in the base value agreed upon by the engineers, is answered in the trial court's opinion. The $1,720,000.00 agreed value included the overheads. The thing that was excluded was an allowance for development cost, in other words, what the trial court terms errors and misfortunes of the past. It is admitted that no allowance was made for these. We submit plaintiff's own argument shows this was the construction everywhere put on the agreement because the additional separate sum it is seeking to have included is an allowance for the excess of deficits over surpluses arrived at by an application of the Wisconsin Method. The agreement does not preclude such an allowance if it is legally entitled to it.

While the trial court made it plain in the original opinion that he valued the property as a going concern, it was made more explicit in the opinion on motion for rehearing. He declined to go back to the days when Galveston was a village, and follow the vicissitudes of plaintiff and its predecessors in title and thereby allow for the misfortunes and errors of the past. He valued the plant as it stood today in a city with a population ready to be served if the plant were reproduced, and provided in the estimated cost of reproduction the amounts necessary to make it a going concern, by adding the very overheads that would make it such. The agreement did not preclude the right to do this.

2. IN DETERMINING THE FAIR VALUE OF THE PROPERTY FOR RATE-MAKING PURPOSES, THE COURT SHOULD NOT HAVE ADOPTED THE PLATEAU PRICE LEVEL OF 60 PER CENT TO 70 PER CENT ABOVE PRE-WAR PRICES.

We can add little to what the learned trial judge has said on this question. While it is true that this Court has said in decisions rendered before the present era of high prices that as a general rule the fair value of the property for rate-making purposes should be determined as of the time when the inquiry is made, yet it was recognized even as early as 1909 that there might be an exception to this general rule. In Willcox vs. Gas Co., 212 U. S. 19, 53 L. Ed. 382, the present situation was anticipated when it was said:

> "We do not say there may not possibly be an exception to it where the property may have increased so enormously in value as to render a rate permitting a reasonable return upon such increased value unjust to the public. How such facts should be treated is not a question now before us, as this case does not present it. We refer to the matter only for the purpose of stating that the decision herein does not prevent an inquiry into the question when, if ever, it should be necessarily presented."

Plaintiff, in effect, now presents the question, although under different circumstances and conditions from those that then obtained. The lower courts and commissions have in unusual unanimity refused to give full effect in rate cases to the abnormal prices resulting from the war, and have usually given as the reasons those assigned by the learned trial judge. Even plaintiff's expert admitted that it would be unfair to the public to take the high peak of war prices. This admission was made in the hearings before the Master in October, 1920, when the declines were negligible. What has taken place since then is a matter of current history. We do not have to approach normalcy to sustain the trial court's valuation of the property or his allowance for operating expenses and maintenance.

The opinion of Ex-Justice Hughes, as Referee in the Brooklyn Borough Gas Co. Case, P. U. R., 1918 F, 335, decided July 24, 1918, is worthy of note. It has been widely quoted and followed by courts and commissions. He said:

> "While it is important to consider the cost of reproduction in determining the fair value of a plant for rate-making purposes, it cannot be said that there is a constitutional right to have the rates of a public service corporation based upon the estimated cost of the reproduction of its property at a particular time regardless of circumstances. To base rates upon a plant valuation simply representing a hypothetical cost of reproduction at a time of abnormally high prices due to exceptional conditions would be manifestly unfair to the public, and likewise to base rates upon an estimated cost of reproduction far lower than the actual bona fide and prudent investment because of abnormally low prices would be unfair to the company. This question of taking the hypothetical reproduction cost under abnormal conditions as a rate base should, of course, not be confused with the necessity of recognizing actual costs of operation even though abnormal. A public service corporation is entitled to be reasonably compensated for its service, and the actual cost of its operations must always be taken into consideration in determining whether or not it receives a fair compensation above that cost. But it is a different thing, after cost has been defrayed, and the question is as to the compensation to be allowed in excess of cost, to take as the basis for a compensatory return an asserted plant value, far above the actual investment,

which is reached merely by expert extimates of a cost of reproduction under abnormal conditions. This would result in allowing a public service corporation to take advantage of a public calamity by increasing its rates above what would be a liberal return not only on actual investment, but upon a normal reproduction cost, in the view that unless it could make an essentially exorbitant demand upon the public it would be deprived of its property without due process of law. The enforcement of the constitutional guaranty does not require the application of any artificial formula. It has constantly been pointed out that the rate base must be what is called 'the fair value of the property,' and that as to this there must be a reasonable judgment based on a proper consideration of all relevant facts."

3. NO ALLOWANCE FOR BROKERAGE FEE SHOULD HAVE BEEN LEFT IN THE RATE BASE.

In the analysis of the items going to make up the estimated, agreed, original, undepreciated cost of the property existing June 30, 1920, plaintiff's expert says:

> "Loans of comparatively small amounts of money for the construction of public utility properties have commonly cost in commissions and expenses from 4 per cent to 5 per cent of the net amount borrowed. The fact that these are most frequently paid in the form of discounts on securities issued has led to some confusion in this matter, since discounts are obviously dependent upon other factors also—in particular, that of the interest rate which the securities bear. In accordance with these facts, the discounts commonly given on the sale of securities in either large or small amounts are observed to be composed, first of a fee paid for brokerage services, and second of an amount or percentage which is dependent upon interest rates and other factors. Only the fee element is here considered.
>
> "The cost of constructing public utilities is usually provided for by the Sale of Bonds totaling from 75 to 80 per cent of the entire amount, and by stock subscriptions or

sales for the remaining portion, but the cost of brokerage is substantially the same for the total.

"On Accts. Nos. 1 to 44, 47 and 48—$1,679,958 x 0.04—$67,078." (Record, p. 160).

An able discussion of this question is found in National Telephone Co., Ltd. vs. His Majesty's Postmaster General, 16 A. T. & T. Co., Com. L. 491, January 13, 1913. The case is reviewed and quoted from at length in Whitten, Vol. 2 (Supplement 1914), "Valuation of Public Service Corporation," p. 1076. The reasons for and against the allowance of this item are forcefully and ably stated in the majority and dissenting opinions. We submit, however, that the dissenting opinion is the more sound. The gist of the dissenting opinion is shown by the following extended quotation:

> "It is also not unimportant to note that, in his speech of reply, Sir Alfred Cripps abandoned the items of discount and duties, and asked only for the allowance of the brokerage and commission, but I fail to see that there is in principle any distinction between these items of expense.
>
> "The question is whether the cost of raising the money to pay for the construction of the plant can be taken into consideration in ascertaining the value of the plant. What we have to do is to ascertain the value of the plant. It is no part of our duty, and it is not within the ambit of our inquiry, to ascertain how the money (the equivalent of that value) to pay for that plant shall be raised, whether in stocks or shares, or otherwise, or what will be the cost of raising or obtaining it. It is, with great respect, in my humble judgment, a wholly independent and irrelevant matter. For the purpose of ascertaining the statutory value of a tramway under the Tramway Act, it has been laid down that the value is what it would cost the purchaser to construct it.
>
> "To find out what it would cost to construct, then, is one of the steps to ascertain the value of the plant. It seems, necessarily, to follow that only those expenses which bear on the value of the thing constructed can be properly taken

> into account. Those expenses, forming the actual cost of construction, having been ascertained, represent the value. That value has then to be expressed and paid in the current coin of the realm. How, or where, that current coin is obtained, or what is paid for obtaining it, has nothing in the world to do with the value of the thing which is the subject-matter of the payment. If it were otherwise, the cost of construction, and equally, the value of the thing constructed, would differ according to the financial standing of the person who constructs. This could not be more pointedly and pithily expressed than in the little dialogue between the learned judge and Mr. Gill, the company's engineer, on the question being first raised on the eighth day of the proceedings, at page 244 of the Shorthand Notes, when the judge said to Mr. Gill, who was giving evidence on the point: 'You see, if what it costs to (raise the money) becomes an element of value of the plant, then the worse the credit of the person providing the plant the greater the value of the plant,' to which Mr. Gill replied: 'Yes, I see that, that is so.' It obviously must be so."
>
> Whitten, Vol. 2, (Supplement 1914), "Valuation of Public Service Corporations," pp. 1080-1081.

Many of the American cases are collected and reviewed in Mr. Whitten's work referred to above.

We submit that, in view of the facts of this case, the trial court made correct disposition of this item.

4. THE TRIAL COURT SHOULD NOT HAVE INCLUDED IN THE VALUATION OF THE PROPERTIES $136,000.00, PLUS ENGINEERING, FOR GRADE RAISING.

Mr. Elrod, the City's expert, in the evidence gave his reason for excluding this item, as follows:

> "I have omitted the grade raising items because the necessity for the grade raising grew out of the storm of 1900, which was a community calamity and the expense attached to placing Galveston at an elevation of safety was one that

> had to be borne by everybody alike, and the Galveston Electric Company was in the same position as a private citizen. It was not a thing which added anything to the value of the property. If you were to reproduce this property today, you would not have any item of grade raising to contend with."
>
> (Record, p. 124).

The trial court in his original opinion excluded the item, but on motion for rehearing admitted it.

As has already been shown, the engineers valued the property in place, and doing business. Since it was so valued, to add an expenditure that did no more than contribute to give such value, would be to allow the value of the property and in addition thereto one of the elements of such value. Wouldn't this be double valuation? Wherein does this differ materially from valuing a car barn and then adding to it some element of the cost of the barn, such as the foundation? If the valuation had been made on the basis of money actually invested, then it should be allowed; but to include it where the reproduction method is used is a double valuation. If plaintiff would permit the City to consider the value of the property in the condition it was before it was raised, then it would gladly have admitted the cost of raising it.

Moreover, it was pointed out by Mr. Elrod in his evidence, this was an expense made necessary in order to guard against future hurricanes. To have this taken into consideration would be to make the public, in a measure, an insurer against expenses resulting from casualties. The Company has already in the valuation been given the benefit of the unearned increment growing out of the raising of the city by the public. Should it not be charged with this expense? We submit the question was correctly decided in the first instance by the trial court, whether looked upon as an expenditure that enhanced the value of the property, or whether as one of the hazards to be assumed by the Company.

II.

ISSUES RELATING TO DETERMINATION OF NET EARNINGS AVAILABLE FOR RETURN.

1. The question arising from the treatment given to annual maintenance, deferred maintenance, the depreciation allowance, and as to whether past operating experiences should have been used in testing the ordinance are so interrelated that they can be considered together. We submit that in testing the validity of the ordinance the trial court

(a) Properly allowed for the depreciation annuity $45,240.00 instead of $66,824.00;

(b) Properly allowed $70,000.00 for maintenance instead of the amounts actually expended during the so-called test periods;

(c) Properly refused to make a separate allowance for maintenance deferred;

(d) Properly considered the future operation of the ordinance rather than be governed wholly by past experiences.

The evidence relating to maintenance, depreciation annuity, deferred maintenance and the so-called test period.

The following may be deduced from the evidence:

(a) That it was extremely difficult to differentiate properly in accounting methods between what should be charged to maintenance and what to depreciation;

(b) That the amount expended annually for maintenance may vary from year to year, and therefore it is not proper to take actual expenditures in one year as a measure;

(c) That it is preferable to make one allowance for the depreciation annuity and maintenance on account of inability in accounting methods to differentiate between what should be charged to maintenance and what to depreciation;

(d) That the average annual expenditures for maintenance for the 19 1-2 years ended June 30, 1920 was $42,000.00, and for reconstruction, replacements and abandonments $21,300.00. That the average that should have been expended annually during the 19 1-2 years ended June 30, 1920 to have taken care of the accrued depreciation ($390,000.00) would have been $20,000.00.

(e) The actual expenditure for maintenance during the calendar year 1919 was $64,108.00 and for the calendar year 1920 was $90,861.00.

(f) A marked reduction in the cost of labor and materials took place between June 30, 1920 and January 1, 1921; and further declines were believed on January 1, 1921 to be in sight.

Some portions of the evidence are pertinent.

Mr. Gillette testified:

> "Maintenance is always an operating expense which may vary from year to year. It is not correct to take the maintenance actually found in the last year without determining the fair average, although Courts and Commissions frequently do so. The actual maintenance may be sub-normal or supernormal. My percentage allowance gives the normal maintenance. In my opinion the Court should take the flat percentage of the cost of the property to cover both the depreciation annuity and maintenancce, to be apportioned as he might see fit, according to the testimony, on account of the inability in accounting methods to always properly differentiate between maintenance and depreciation annuity. You cannot go wrong if the total is right, but you may go wrong on distribution, and if the total is right the rate will be right. Owing to the present cost of maintenance the prewar percentage should either be doubled or the base value upon which the percentage is figured should be doubled. The Courts usually leave this question to the engineers and most engineers follow my method. I have never seen it criticised by any Court. It is bomb-proof.
>
> "I figure the maintenance for the year 1920 by taking the percentage 6.46 and multiplying it by $1,653,000.00 which

gives in round numbers $104,000.00. The percentage 6.46 is arrived at by doubling the percentage 3.23 for a small war period and a large pre-war period. Taking the entire pre-war period alone, it would be 3.4. As during the war the maintenance was sub-normal, I have called it 3.23. Doubling this, because maintenance prices and labor cost have doubled, gives 6.46 as the normal maintenance. It would be impossible to determine what the maintenance ought to be by inspecting the property, that is, for any one year."

(Record, p. 113).

Mr. Elrod, the City's expert, testified in part:

"I am asked what should be allowed as depreciation annuity and upon what should it be based. I have based my study of depreciation on the actual recorded amount of replacements, that is the amount of depreciation that has occured in the properties, and I have arrived at it in very much the same manner as Mr. Gillette has arrived at his. The total amount of maintenance, repairs and depreciation amount to about 9 1-2 per cent, the maintenance at 5.5 per cent and the difference of 4 per cent for the annual depreciation charge. I have worked it out differently from Mr. Gillette, although I arrived at that conclusion in my report. Inasmuch as both Mr. Gillette and I use the recorded book costs we arrived at the same final results as far as the percentages for maintenance were concerned, as basis for estimating the normal depreciation and normal maintenance before the war. (That percentage is 3.41. During the war period the maintenance was slightly below that. In my opinion the recorded maintenance actually incurred and paid for by the Company during the past twelve months amounting to $80,322.00 is a fair maintenance. It is not quite double the normal maintenance for the fifteen years prior to the war. Prices of material and probably of labor will not likely be greater and will perhaps be less during the coming year, in my opinion, and I conclude that the amount of recorded maintenance shown by the Company's books for the past twelve months, which is almost double the normal pre-war maintenance, is an ample allowance for maintenance. If our percentages were based on the same base, I think we would come out very close to the same answer on the matter of maintenance and depreciation. 4 per cent is the amount most generally allowed for utilities of this character for depreciation annuity, although some have been allowed three or even two as a minimum. I have taken 4 per cent.

"Maintenance and depreciation are both operating charges. It is a very difficult matter to draw a definite line between the two in many instances. If a larger percent be allowed for depreciation, then a smaller per cent would have to be allowed for maintenance, and vice versa. Without an analysis nothing but the total can be found. In the past the annuity allowed on utilities has generally been based on a pure assumption of the engineer that so much money was sufficient. From working out several tables I find that 4 per cent is an ample allowance for depreciation and 5.5 per cent is equally sufficient for maintenance. I have assumed in these calculations an 8 per cent return. That is the usual rate allowed for utilities in this state and in my opinion an ample return as well as being the rate asked for by the Company in 1918 or 1919 when it requested an increase in fares. I think it is a fair rate of return for this case.

"As a base for the percentage for maintenance we have used recorded maintenance for a number of years to ascertain what the average maintenance is for a number of years. Some years will be more than others, but by and large over a period of years it is fairly constant. I apply it to the same base as I do the depreciation annuity, namely to the plant value which is the only constant value you have. I take out the same items that I took out for depreciation, that is the non-depreciable items, overheads, real estate, working capital, material and supplies."

(Record, pp. 122-3).

Mr. Gillette further explains in his evidence the method he desired the Master to adopt for handling the depreciable annuity and maintenance:

> "I am asked to explain the term 'depreciation annuity' and the difference between depreciation and depreciation annuity. This new plant has been practically rebuilt in the last twenty years, since the flood of 1900, so that for a clear statement of what the annual cost of up-keep has been, it is correct to take the last twenty years. On page 97 of my report I have a table that shows the maintenance and repairs for each year for those twenty years. I have pro-rated to the replacements that have been charged out through the depreciation reserve separately. In addition to that I have added an accrued depreciation of $390,000.00, practically all of which has occurred in those twenty years, and have distributed it each year over the entire twenty years. If the system had been kept at 100 per cent condition, that money would have had to have been spent and if it had gotten from current earnings enough to take out of it, it would now have areserve fund of that amount, $390,000.00. As a matter of fact, you would have to put in about $20,000.00 per year to take care of that depreciation. Nineteen and one-half years have elapsed and the average cost of the plant at the middle of each year, excluding stores and supplies, is $1,300,000.00. That is based upon figuring backward from practically the figures Mr. Elrod and I agreed upon. For example, on June 30, 1920 $1,654,000.00 in round numbers, and subtracting the additions that have been made to the plant, we find what the cost of pre-war reproduction would have been in any year. During that twenty-year period the average investment was about $1,320,000.00 The average maintenance per annum was $42,000.00; the average renewals charged through the reserve but not charged to maintenance, $21,300.00; the average that should have been put in annually to take care of this $390,000.00 depreciation would be $20,000.00 per year. The sum total of those up-keep charges would be $83,300.00

per year, being small in the early years and larger in the late years. That is 6.4 per cent per annum of the average cost of reproduction at pre-war prices, about half of which, namely 3.23 per cent, was current maintenance, and the balance, 3.22 per cent, was renewals and depreciation annuity that should have been set aside as a reserve and accumulated so as now to equal the accrued depreciation of $390,000.00. One of the objects of this is to show whether the maintenance and renewal expenditures in the last twelve months were normal. I think everybody will agree that maintenance expenses are practically twice what they were in these preceding years, the cost of each unit and labor having practically doubled. So, of 3.23 per cent was a correct maintenance charge for the past years, double that, or 6.46 per cent would be a normal maintenance. Maintenance is something you have to pay right now or in the very near future out of operating expenses at the high prices obtaining for labor and material. As to renewals, 3.22 per cent, I would not change the percentage. To renew a unit it costs practically double what it did before the war, but half of that is charged to renewal while the other half is put in the capital account. Doubling the current maintenance rate from 3.23 per cent to 6.46 per cent and adding to it 3.22 per cent for depreciation annuity gives you almost 10 per cent. So you should take ten per cent of this $1,650,000.00 to get the annual up-keep charges on the plant, which would be about $165,000.00. I do not say that 10 per cent should be set aside annually for up-keep. I say that you should take 10 per cent and deduct the amount that is actually spent in each year for maintenance and renewals. For instance, last year I think they spent $110,000.00 and the difference would be up-keep unprovided for. On that basis it would be about 3.6 per cent for the depreciation annuity for that year. During the last twenty years nothing has been set up for depreciation, and what were called the net earnings, which were the gross earnings minus the operating expenses, were not the true earnings. What they spent for maintenance was included, but there was depreciation accruing for which they did not set aside any depreciation annuity. The average net earnings for this period were 6¼ per cent, and if my figure of 1½ per cent for annual depreciation annuity to take care of accruing but not matured depreciation is correct, by deducting that, the net earnings will be 5 per cent. For the last twenty years after providing for maintenance the Company would have had to have 3 1-10 per cent for annuity on top of the 3.4 per cent for maintenance to provide for renewals. There is no strict dividing line between maintenance and renewals in any accounting system. During the last twenty years during which the plant was reconstructed there was spent some four hundred odd thousand dollars for renewals, as shown by the books, in addition to the maintenance which was about twice that. The renewal item is 1.6 per cent, which makes up a portion of the depreciation annuity for the extent that the property has been consumed in service. If this had not been done, the depreciation would be about double that. If they had not made the renewals, the depreciation would be about twice $390,000.00 The 3.4 per cent for renewals is another figure; that is for the current repairs and maintenance. This would be charged directly to operating expenses and other current repairs. Where units were actually renewed the renewals would be charged to the depreciation account, but in addition to that there was $390,000.00 accrued depreciation which, spread over the whole period, amounted to about 1½ per cent. That much the Company should have had in order to maintain the investment intact."

(Record, pp. 100-102).

Again Mr. Gillette testified:

"The only way to determine what should be set aside is to follow the history of the Company, see what it has spent for maintenance and repairs and renewals and what they should have set aside to provide for the accrued depreciation in the property if the earnings were sufficient."

(Record, p. 111).

And again:

"As to maintenance. The total maintenance for the year ending June 30, 1920 was $80,322.00, which was subnormal. Taking the average maintenance at 6.46 per cent and multiplying it by $1,600,000.00 gives the normal maintenance for the year ending June 30, 1920 based on the history for the last twenty years—$104,000.00. As only $80,000.00 was actually spent, it was subnormal to the extent of $24,000.00. In my set-up I eliminated that subnormality, and the item of up-keep unprovided for comes out of $59,000.00. My up-keep unprovided for covers the annual percentage of depreciation and the subnormal maintenance. The maintenance for the twenty years in percentage of investment in the plant averaged 3.23 per cent, but this has got to be doubled because today a dollar is only worth half what it was. Applying it to the old base investment figure gives 6.46 per cent as what now should be normal maintenance upon the pre-war cost of the plant. Applying the 3.23 per cent to the cost of the plant at present prices, which is practically double the pre-war prices, you get the same result. In 1919 only $64,000.00 was spent for maintenance but that was subnormal, and even in 1920 with $80,000.00 spent there was $24,000.00 less than the normal maintenance. During the war a good deal of maintenance was deferred, but in making this set-up I make no allowances for that. If I had, I would add on another $10,000.00 a year and more to the percentage. I have set up only the actual maintenance, but the deferred maintenance can be figured in any year by taking 6.4 per cent times the plant value in that year and subtracting from it the actual maintenance and repairs. The result would be the deferred maintenance. In 1920 the maintenance was nearly double what it was before the war. Additions to property of about $150,000.00 partly account for this. These additions are due to replacing old units with more valuable property. I use the word, 'up-keep cost' to cover everything that falls under the head of maintenance or deprecia-

> tion. It can be divided into maintenance or repairs, and renewals or depreciation."
>
> (Record, pp. 111-2).

Mr. Elrod also testified:

> "In determining the 9½ per cent for up-keep cost I used the basis of the recorded book values, or rather the record cost of maintenance and the record cost of the property. For the year 1920 I took the actual maintenance, from the books which I thought was a fair maintenance, but which Mr. Gillette thought was subnormal. The amount of depreciation allowance for 1920 I found by taking 9½ per cent and deducting the $80,000.00 actually spent. Mr. Gillete applied his percentage to $1,600,000.00 which was the total value including overheads and non-depreciables. I deducted those non-depreciables so that the difference came not in the percentages but in the basis to which the percentages were applied."
>
> (Record, p. 129).

Since it will be noted from the foregoing that the engineers in making their respective studies did so upon the basis of the undepreciated record cost of the properties, it should be borne in mind that the undepreciated, agreed historical reproduction value was some $400,000.00 less than the undepreciated record cost. Mr. Gillette in respect to this testified in part:

> "The figure of $390,000.00 was arrived at by inspecting the property and deducting what I thought was the amount of depreciation in connection with the historical cost. The discrepancies of $400,000.00 between the historical cost and the record cost may be due to various omissions and underestimates. It looks as if in the record cost the Company had not written off a considerable part of the property that should have been writen off by reason of construction or abandonment prior to 1900. That portion, I should guess, could not exceed $200,000.00. It will not affect the final figure of $2,785,000.00 as the residual investment in the

property by 12 per cent as I think we may have, $40,000.00 purely arbitrary to take $390,000.00 from the record price as the depreciation. Unless we have underestimated the property by 12 per cent as I thing we may have, $40,000.00 to $50,000.00 should be added to the $390,000.00. It is not unusual to find a large discrepancy between the historical cost and the record cost, especially in properties which go back as far as this one does."

(a) *$45,240.00 was a proper allowance for the depreciation annuity.*

Neither the Master nor the trial judge followed the recommendations of the engineers in respect to making one allowance to cover maintenance and depreciation; each followed the usual custom of making separate allowances. The allowance by the Judge of $70,000.00 for maintenance, and $45,240.00 for depreciation, total $115,240.00, is equal to a little more than 10% of the value of the depreciables found by the trial judge to be $1,131,000.00.

The trial judge eliminated all of the overheads in determining the amount to which the 4% depreciation annuity should apply; the Master eliminated all except engineering. The other difference is that the Master allowed the 4% for depreciation on $520,000.00 included for going-concern value. If this is eliminated from his figure, $1,670,610.00, it will be less than the base the trial court used, namely, $1,131,000.00. Clearly the Master was in error, because by no process of reasoning can it be said that going-concern value in the sense of development cost depreciates. But it may be argued that the Master did not intend to allow depreciation on the $520,000.00 as representing going value, but as representing the accrued depreciation; the Master offset accrued depreciation by allowing the same amount for going concern. If he intended to allow depreciation on the amount of accrued depreciation, then he also erred, because it was property that no longer existed. Certainly the depreciation annuity should not be allowed on property that does not exist. In other words, the Master would be allowing as large a depreciation annuity as if there had been no accrued depreciation. This would have been proper if the plant was new. The amount the trial court has allowed for the depreciation annuity, $45,240.00, is more than twice the average amount charged to this account during the 19½ years ended June 30, 1920, the average being $21,300.00 (Record, p. 146). During the year ended June 30, 1918, the actual expenditures for reconstruction, replacements and abandonments was only $5,834.00; and for the year ended June 30, 1919, $2,340.00 (Record, p. 146).

But it is argued that the trial court should have allowed the depreciation annuity on the overheads. The argument would be sound if the plant was going out of existence at the expiration of 25 years. But this is not contemplated. The 50-year franchise does not expire until 1950. These overhead items arise and are properly taken into account during the construction period. When incurred, they inhere in and become part of the value of the properties, and this value continues as long as the plant is maintained. This is true even beyond the life of the franchise. Denver vs. Denver Water Co., supra.

(b) *$70,000.00 was a proper allowance for maintenance.*

In reference to maintenance it will be noted that the gist of Mr. Gillette's evidence is that the allowance for maintenance should be doubled because the cost of labor and material when he was testifying was about double. That was substantially the condition when he was testifying at the hearings before the Master, but conditions were different when the trial court ruled the case in January, for by that time the present national depression was well under way. The cost of labor and material, as the trial court aptly points out in his opinion, was not then twice pre-war levels.

Therefore, if the trial court could consider price levels at that time and had the right to forecast the conditions that exist to-day, he was warranted, upon the basis of Mr. Gillettes' own reasoning, to estimate the average normal maintenance for the future at $70,000.00. This is 1.66 times as much as was the average expenditure for 19½ years ended June 30, 1921. Both engineers had testified, as is shown above, that it should be arrived at on the basis of averages rather than upon what was actually spent during any one year. The average of $42,000.00 includes the period during and following the war.

In plaintiff's brief reference is made to maintenance during the year 1913. Reference to the chart shown herein between pages 10 and 11 will show that 1913 was a rather abnormal year. Gross earnings, operating expenses and maintenance were each large. 1913, 1914 and 1915 were "fat" years.

The history of this plant is shown in the chart referred to. If we, in a mental picture, project the lines of this chart through the year 1921, in the light of present conditions will it not be seen that the maintenance line, as well as the operating expense line, should go downward just as the trial court has found and predicted? If the cost of maintenance in the future does not decrease, the cause will be found in factors and considerations that have not controlled in the past. The Company should not have to pay its present wage scale. Practically every industry is now reducing or considering the reduction of wages, and if plaintiff does not do so it will not be in line with what is going on everywhere. We therefore respectfully submit that the trial court was well within the evidence in the allowance of $70,000.00 for maintenance.

(c) *An allowance for deferred maintenance was properly refused.*

In the brief it is claimed, in effect, that the trial court should have found and taken into consideration that there was deferred maintenance. It is said:

> "Through the use of the average yearly index numbers for wholesale commodities in evidence before the Court, a determination was made which showed that during the war years and the two years immediately following, during which war conditions respecting commodity prices continued, maintenance was deferred on the properties of the plaintiff in the following amounts:
>
> | | |
> |---|---|
> | 1915 | $ 5,700 |
> | 1916 | 27,200 |
> | 1917 | 49,400 |
> | 1918 | 52,600 |
> | 1919 | 37,000 |
> | 1920 | 25,100 |
> | Total deferred maintenance | $197,000." |

It is not apparent how these figures were arrived at. Should maintenance have been subnormal during 1915, 1916 and the early part of 1917? While the European War began in August, 1914, it should be borne in mind that the United States did not enter until April, 1917. Until our entry in the war there had been nothing to prevent utilities from maintaining their properties. We were neutral. In fact, there was some sentiment at that time against the sale of supplies to the Allies. At any rate, the average of the index figures for 1914 show there was no increase in prices; the average for 1915 was 101, practically no increase. The average index figure for 1916 was only 123. Considering the large gross earnings of the Company in 1915, as well as the large earnings in 1916, there was no reason why an adequate amount should not have been spent in maintenance. These, with the two preceding, were "fat" years.

There was a reduction in 1917 and 1918 of the amount spent for maintenance, if to be measured by prices that then prevailed as reflected by the index numbers; but it will be noted that this was during the period of depression in the City of Galveston. The gross receipts for 1917 and 1918 were low by comparison with the immediately preceding years. See chart. Ships were diverted from the Gulf to Atlantic ports during the war because of the great demand for bottoms in moving troops and supplies to Europe more quickly. With the gross receipts greatly reduced, there was no occasion for maintenance charges to be as high as they would have been by comparison with the "fat" years just prior to the war. Considering the amounts spent in 1919 and 1920, there was no deferred maintenance during these years.

It is worthy of note that the total maintenance ($197,000.00) plaintiff contends was deferred during the six years from 1915 to 1920 is a little more than half the amount of accrued depreciation ($390,000.00) that plaintiff's expert found in the properties from the time the plant was constructed to the period ended June 30, 1920. This is approximately 38 per cent of the amount of accrued depreciation after it had been appreciated one-third. Even if plaintiff is correct, then, we submit, this deferred maintenance should have been treated as nothing more than accrued depreciation, and that estimate to-wit, $505,000.00, approved. Deferred maintenance is nothing more than accrued depreciation, which has been defined as "the lessening in value of a property due to wear and tear in operation, the action of the elements, inadequacy, obsolescence and *deferred maintenance*." (Italics ours). In re Brigham City Municipal Corporation (Utah) P. U. R. 1919 E, 359.

In Washington Railway & Electric Company, P. U. R. 1919 D, 675, the District of Columbia Public Utilities Commission, in passing upon a claim for deferred maintenance, in fixing rates said:

> "It is conceded that prices of labor and material have advanced greatly in the past few years, but the transportation revenue of the company has also greatly increased, while at the same time there has been no appreciable increase in the

> length of the track to be maintained. The Commission believes that the deferred maintenance of today amounts to an impairment of capital, and that the present urgent need for repairs to track and roadway should not be considered as a reason for an increase in rates."

Moreover, in view of the evidence that the line of demarcation between the maintenance and depreciation charges is shadowy, it is worthy of note that during the fiscal year ended June, 1918 only $5,839.00 was charged to reconstruction, replacements and abandonments, and during the fiscal year ended June 30, 1919 only $2,340.00. The Indiana Public Service Commission, in Citizens Telephone Co., P. U. R. 1919 B, 359-360, made some pertinent observations when it said:

> "The ratepayers should not be taxed with a large operating expense, including expenditures properly chargeable to depreciation and also with a return on investment, and in addition be required to pay full rate of depreciation which may be utilized by the company or the stockholder, as they may see fit.
>
> "The rate of depreciation allowed for telephone properties, or any utility property for that matter, is more or less an arbitrary and unscientific allowance, unless there is a clear understanding and requirement as to what items of expenditures are to be charged against depreciation reserve. Apropos of this point, what good is accomplished by determining the theoretical life of the various units of a property and by conforming a rate of depreciation thereto if the fund created by such rate is to be a mythical thing, and the utilities left to their own devices with regard to the depreciation charges to be made. Commissions are as much, if not more, at fault than the utilities. To enable utilities to handle their depreciation accounts and funds in a safe and businesslike manner, this Commission, in several cases, had required the actual moneys provided for depreciation to be set aside in a separate fund, and held and expended strictly for de-

preciation purposes. This step would be supplemented by distinguishing maintenance (ordinary repairs) and depreciation. Much has been said on this subject, and the general opinion seems to be that such a distinction in practice cannot satisfactorily be made. A proper rejoiner, it seems, to this conclusion is that practically all utilities are now making such a distinction, but each makes its own distinction, and has a separate rule or an individual method of classification. A chaotic condition has resulted, and utilities, especially telephone, are at their wit's end in making charges against maintenance and depreciation. The natural result has followed. Many utilities are charging the bulk of depreciation expenditures to ordinary maintenance or repairs, and operating expenses are thereby inflated. In a rate case, this situation demands the closest scrutiny and separation of operating expenses, which frequently is a futile endeavor.

"If the present method of fixing rates of depreciation is to be followed, there is an urgent need for the distinction to be drawn. It is not so much a matter of drawing a precise and scientific line of demarcation, but the real necessity is for some line to be drawn, and once drawn uniformly followed. Utilities would know what to charge to maintenance and what to charge to depreciation. Depreciation rates could then be fixed with some degree of precision and correctness."

(d) *The trial court properly considered the future operation of the ordinance rather than be governed wholly by past experiences.*

That part of plaintiff's brief wherein the opinion of the trial court is attacked for declining to be wholly bound by the so-called test periods, it seems to us, is sufficiently answered by the findings of fact made by the trial court and the conclusions drawn therefrom. He was testing the constitutionality of the ordinance for its future operation, not for the purpose of making restitution for any deficits in a fair return that plaintiff might have suffered during the trying conditions that confronted every business during and following the war. The trial court found, and the evidence warranted him in so finding, that the gross revenue for the last six months of 1920 forecasted gross revenue for the whole of 1921 of $618,000.00, as against $581,418.33 for the calendar year 1920. But plaintiff urges that this forecast should not have been made, because past experiences showed that the gross revenue was larger for the last six months. This contention of plaintiff's, however, is answered by the fact that gross revenue during each year, beginning with 1918, had been materially increasing. Was it not, therefore, not only reasonable but necessary, in view of these facts, for the trial court to have considered that the gross revenue for 1921 would show an increase over the year 1920? This anticipated an increase for 1921 of only $36,581.67 over 1920. This was less than the increase that took place in 1919 and in 1920. Then, too, the trial court was warranted in finding from the evidence that operating expenses with the decreases in prices that had taken place would decrease. The point has been so admirably and fully covered by the trial court's opinion that we here quote therefrom.

> "I am not unmindful of the suggestion of counsel for complainant, supported by the statement of earnings, that the last six months of the year is ordinarily a larger earning period than the first six months, and that a better criterion for test purposes is the experience of a whole year rather than a half year.
>
> "To this suggestion it is sufficient to reply that, while this is true of operating returns, it is also true of operating expenses, and that, while I concur with complainant in the view that a part of the increased earnings for the six months period ending December 30, is due to the nature of the period under observation, it is undoubtedly true, as shown by the statements submitted by the company,

that a larger part of this increase is caused by general, not seasonal increased earning power of the company. For, while it is true that the last six months of 1917 produced a greater revenue than the first six months of that same year, it is also true that the first six months of 1918 produced more than the last six months of 1917, that the first six months of 1919 produced more than the last six months of 1918, and that the first six months of 1920 produced within $5,000 as much as the last six months of 1919, so that while it is reasonably certain that the last six months will produce more than the first six months of the year, it is as certain that the first six months of the year following will maintain the standard set by the last six months of the year preceding, and perhaps do somewhat better. This, together with the fact that the operating ratio, which has shown an abnormal increase through the year 1917, 1918, 1919, and 1920, will undoubtedly better itself in the coming year, not only through a slacking up in the raise of labor and material costs, but through the greater efficiency of labor, becoming increasingly evident in all lines, will more than counterbalance any error in allowing too large an influence to the six months experience ending December 30, 1920."

If the gross revenue for the calendar year 1921 equals the amount estimated by the court $618,000.00, an increase of $36,580.00 over the calendar year 1920, and operating expenses are fixed at $329,411.61 and a sufficient allowance was made for maintenance and depreciation, the result would be

Gross Revenue		$618,000.00
Operating expenses	$329,411.61	
Maintenance	70,000.00	
Depreciation	45,245.00	
Taxes (exclusive income)	27,475.30	$472,131.91
Available for return		$145,868.09

This equals a return on the Court's valuation of $1,626,061.00 of 8.9%.

2. AMOUNTS PAID AS FEDERAL INCOME TAXES SHOULD NOT HAVE BEEN INCLUDED IN OPERATING EXPENSES IN TESTING THE VALIDITY OF THE ORDINANCE.

The trial court has, for the reasons he has stated, correctly ruled this point.

CONCLUSION

It was, in effect, admitted at the hearings that plaintiff was entitled to earn 8 per cent per annum on the fair value of its property devoted to the public use, because this was approximately the current rate of return that then prevailed. We submit this would be the correct measure if plaintiff is held to have assumed substantially the same risks that other investors generally assume, otherwise the rate should be less. Mr. Henderson in the article, "Railway Valuation and the Courts," supra, laid down the correct test, when he said:

> "If you are to assume the risks of earthquakes, floods, and strikes, or of unavoidable mistakes in construction or operation, you will insist, and rightly insist, on a larger percentage return to compensate you for that risk. If we assume those risks, we are entitled to ask you to be content with a lower rate return. If you are to get the benefit of what my friend calls the unearned increment, that is an added attraction which the community is offering you, and which should induce you to accept a very moderate rate of annual return; if you are to get a return only on the money actually invested, you will be reasonable in demanding a larger rate of return."

Whether plaintiff is entitled to an 8% rate of return should be influenced by the disposition made of the questions in respect to an allowance for going value and grade raising. Plaintiff has been given the benefit of the unearned increment in the valuation of its property at present values.

Respectfully submitted,
FRANK S. ANDERSON,
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Attorneys for Defendants.

GALVESTON ELECTRIC COMPANY *v.* CITY OF GALVESTON ET AL.

APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES FOR THE SOUTHERN DISTRICT OF TEXAS.

No. 455. Argued December 15, 16, 1921.—Decided April 10, 1922.

1. The fact that a public utility, such as a street railway, may reach financial success only in time, or not at all, is a reason for allowing a liberal return on the money invested in the enterprise; but it does not make past losses an element to be considered in deciding what the base value is and whether a rate fixed is confiscatory. P. 395.
2. A so-called "going concern value and development cost" based on calculations, for various periods, of past deficiencies of net income, allowing 4 per cent. for annual depreciation and 8 per cent. compound interest on the value of the property used as a fair return, should not be included in the base value of appellant's street railway in determining whether an existing rate is confiscatory. P. 395.
3. Neither should an allowance for hypothetical brokerage fees based on a percentage customarily obtained by bankers for financing such enterprises. P. 397.
4. In determining the sufficiency of such rates, the amount normally required for maintenance, not necessarily the amount expended, annually, should be allowed; and many items included in overhead cost of original construction may be excluded in calculating depreciation annuity. P. 398.
5. Appellant's request that prospective cost of maintenance deferred during the war at the wish of the Government be allowed from earnings of future years, in testing the rate, was an attempt to capitalize past losses and rightly refused. P. 399.
6. In calculating whether a rate fixed will yield an adequate return, income taxes which would be payable if a fair return were earned are appropriate deductions from gross revenue. P. 399.
7. But, where the federal corporate income tax, (Act of February 24, 1919, c. 18, §§ 230–238, 40 Stat. 1057, 1075–1080,) is thus deducted, the exemption of the stockholder from the "normal" tax on dividends received from the corporation must be taken into consideration in determining what rate of return to the corporation shall be deemed fair. P. 399.

8. An ordinance rate inadequate when adopted will be valid when, through change of conditions, it yields a fair return. P. 400.
9. The court knows judicially that prices, in general, and current rates of return on capital have declined since the conclusion of the war, but not the extent to which the economic changes occurring have affected the gross revenues or the net return of the appellant company. P. 402.
10. A decree of the District Court dismissing without prejudice the bill of a street railway company to restrain enforcement of an ordinance rate as confiscatory, *affirmed*, where an operation test of more than a year and a half was inconclusive because of abnormal economic conditions then existing, and where the lower court's view of the probable future adequacy of the rate was necessarily based largely on prophecy, and was free from substantial error as to the elements to be considered, and where the actual facts were substantially undisputed and the evidence did not compel a contrary conviction. P. 401.

272 Fed. 147, affirmed.

Appeal from a decree of the District Court, dismissing, without prejudice, a bill brought by the appellant to restrain the appellees from enforcing a rate fixed for its street railway.

Mr. William E. Tucker for appellant.

Mr. Frank S. Anderson and *Mr. James W. Wayman* for appellees.

Mr. Justice Brandeis delivered the opinion of the court.

The street railway system of Galveston was started as a horse-car line in 1881. It was electrified about 1890; and after the hurricane of 1900 was largely rebuilt. Upon sale on foreclosure the railway passed in 1901 to a new company; and in 1905 it was purchased by the Galveston Electric Company which supplies to the inhabitants of that city also electric light and power. At no time has the full fare on the railway been more than five cents—

except during the period of eight months, from October 1, 1918, to June 5, 1919, when six cents was charged. This higher fare was authorized by ordinance of the municipal Board of Commissioners which possesses regulatory powers; and on June 5, 1919, the same Board reduced the maximum fare to five cents. The latter ordinance was passed after a hearing and a finding by the Board that with the reduced rate the company would continue to earn a fair return. Under the 1919 ordinance the company operated for eleven months. Then it brought this suit, in the federal court for southern Texas, to enjoin its enforcement. The company contends that the fare prescribed is confiscatory in violation of the Fourteenth Amendment; the city that it is sufficient to yield a return of 8 per cent. on the value of the property used in the public service.

A temporary injunction having been denied, the court appointed a master to take the evidence and make advisory findings. There was substantially no dispute concerning the facts past or present. It was assumed, in view of then prevailing money rates, that 8 per cent. was a fair return upon money invested in the business. The experts agreed on what they called the estimated undepreciated cost of reproduction on the historical basis; that is, what the property ought to have cost on the basis of prices prevailing at the time the system and its various units were constructed. They agreed also on the amount of gross revenue, and on the expenditures made in operation and for taxes, except as hereinafter stated. The differences between the parties resulted mainly, either from differences in prophecy as to the future trend of prices or from differences in legal opinion as to the elements to be considered in determining whether a fair return would be earned. These differences affected both the base value and the amount to be deemed net revenues. The master, who heard the case in October, 1920, and filed his report in November, made findings on which he advised that the fare was confiscatory. The District Judge, who heard the case in January, 1921, found a much smaller base value and much larger net revenues; stated that he did not deem it necessary to determine whether the ordinance will " produce exactly 8 per cent., or a little more or a little short of it "; declared that he was " not satisfied that the ordinance produces a return so plainly inadequate as to justify this court in interfering with the action of the municipality in the exercise of its rate-making function "; and in March, 1921, entered a decree dismissing the bill without prejudice. In April he denied a petition for rehearing. 272 Fed. 147. The case comes here on appeal under § 238 of the Judicial Code.

The undepreciated reproduction cost on the historical basis[1]—which seems to be substantially equivalent to what is often termed the prudent investment[2]—was agreed to be $1,715,825. The parties failed to agree in their estimates of the depreciation accrued up to 1921. The master estimated that, based on the 1913 price level, it was $390,000; and this estimate the court accepted. Thus measured, the value of the property, less depreciation, was $1,325,825. The court found that the net earnings under the five-cent fare for the year ending June 30, 1920, had been $90,159, and for the year ending December 31, 1920, $109,286; and estimated that for the year ending June 30, 1921, they would be at least $111,285. The return so found for the year ending June 30, 1920, is 6.8 per cent. of $1,325,825; for the calendar year 1920, 8.2 per cent.; and for the year ending June 30, 1921, 8.4 per cent. The master made calculations only for the year ending June 30, 1920, and, mainly[1] because he allowed an amount for maintenance and depreciation equal to nearly 18 per cent. of the prudent investment for the depreciable property (less accrued depreciation), found the net earnings to be only $50,249.60. This sum is 3.8 per cent. on the prudent investment value, less depreciation. But neither the District Judge nor the master reached his conclusion as to net return by a calculation as simple as that indicated above.

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[1] That is " the estimated undepreciated cost of reproduction of railway property of the company on the historical basis, exclusive of franchise value, going concern value, bond discount and brokerage fee," but with land and right of way which cost about $15,000 estimated at their present value of $58,836. It was also agreed, for the purpose of dividing joint items, that one-fifth of the property of the company was devoted to its light and power business.

[2] See Richberg, 31 Yale Law Journal, 263, 266, 279; Hale, 30 Yale Law Journal, 710, 720; Henderson, 33 Harvard Law Review, 902 and 1031; Friday, 36 Quarterly Journal of Economics, 197, 211.

First. As the base value of the property, master and court took—instead of the prudent investment value—the estimated cost of reproduction at a later time less depreciation; and in estimating reproduction cost both refused to use as a basis the prices actually prevailing at the time of the hearings. These had risen to 110 per cent. above those of 1913. The basis for calculating reproduction cost adopted by all was prophecy as to the future general price level of commodities, labor and money. This predicted level, which they assumed would be stable for an indefinite period, they called the new plateau of prices. As to the height of this prophesied plateau there was naturally wide divergence of opinion. The company's expert prophesied that the level would be 60 to 70 per cent. above 1913 prices; the master that an increase of 33 1/3 per cent. would prove fair; and the court accepted the master's prophecy of 33 1/3 per cent.[1] Thus both master and court assumed a reproduction cost, after deducting accrued depreciation, of about $1,625,000. On this sum the net earnings found by the court yielded—after deducting a 4 per cent. depreciation annuity on property subject to depreciation, a maintenance charge, and a charge for taxes, other than the federal income tax—a net return of 5½ per cent. for the fiscal year ending June 30, 1920; of 6.7 per cent. for the calendar year 1920; and the promise of more for the fiscal year ending June 30, 1921. But to fix base value the master added, and the court disallowed, items aggregating nearly $600,000, which must now be considered.

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[1] He allowed also on account of federal income taxes a sum of $8,008 which the court disallowed.

The most important of these items is $520,000 for "development cost." The item is called by the master also "going concern value or values of plant in successful operation." He could not have meant by this to cover the cost of establishing the system as a physically going concern, for the cost of converting the inert railway plant into an operating system is covered in the agreed historical value by items aggregating $202,000. These included, besides engineering, supervision, interest, taxes, law expenses, injuries and damages during construction, the sum of $73,281 for the expenses of organization and business management. The going concern value for which the master makes allowance is the cost of developing the operating railway system into a financially successful concern. The only evidence offered, or relied upon, to support his finding is a capitalization of the net balance of alleged past deficits in accordance with what was said to be the Wisconsin Rule.[1] The experts calculated this sum in various ways. One estimate placed the development cost at $2,000,000; a more moderate estimate by the company's expert was $575,300; and the city's expert made a calculation by which he estimated this so-called cost at $212,452.

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[1] From the agreed valuation of $1,715,825, the court deducted $425,117 for property not subject to this appreciation—land, already given its market value, and capital acquired recently (all acquisitions before January 1, 1915, being assumed to have been at the 1913 price level, all since that date at the new level). The balance was appreciated 1/3; the $425,117 was added again; and accrued depreciation, likewise appreciated 1/3, was subtracted. The court thus obtained a base value of $1,626,061. The master's figure was slightly smaller (but for his inclusion of development cost and brokerage) for he excepted more property from this 33 1/3 per cent. appreciation.

If the rule were that a prescribed rate is to be held confiscatory in case net earnings are not sufficient to yield 8 per cent. on the amount prudently invested in the business, there might be propriety in counting as part of the investment such amount, if any, as was necessarily expended at the start in overcoming initial difficulties incident to operation and in securing patronage. But no evidence of any such expenditure was introduced; and the claim of the company does not proceed upon that basis. What was presented by the witnesses are studies, on various theories, of what past deficiencies in net income would aggregate, if 4 per cent. were allowed as a depreciation annuity and 8 per cent. compound interest were charged annually on the value of the property used. These calculations covered, on one basis, the period of 39 years since the original horse-car line was built; on another, the period of 15 years since the appellant purchased the property as a going concern. If net deficits so estimated were made a factor in the rate base, recognition of 8 per cent. as a fair return on the continuing investment would imply substantially a guarantee by the community that the investor will net on his investment ultimately a return of 8 per cent. yearly, with interest compounded on deferred payments; provided only that the traffic will in course of time bear a rate high enough to produce that amount.[1]

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[1] *Hill* v. *Antigo Water Co.*, 3 Wis. R. R. Com. Rep. 623, 705–723. But see *Cunningham* v. *Chippewa Falls Water Co.*, 5 Wis. R. R. Com. Rep. 302, 315; *Appleton* v. *Appleton Water Works Co.*, 5 Wis. R. R. Com. Rep. 215, 277; *In re Purchase Racine Water Works Plant*, 19 Wis. R. R. Com. Rep. 83, 140.

The fact that a utility may reach financial success only in time or not at all, is a reason for allowing a liberal return on the money invested in the enterprise; but it does not make past losses an element to be considered in deciding what the base value is and whether the rate is confiscatory. A company which has failed to secure from year to year sufficient earnings to keep the investment unimpaired and to pay a fair return, whether its failure was the result of imprudence in engaging in the enterprise, or of errors in management, or of omission to exact proper prices for its output, cannot erect out of past deficits a legal basis for holding confiscatory for the future, rates which would, on the basis of present reproduction value, otherwise be compensatory. *Knoxville* v. *Knoxville Water Co.,* 212 U. S. 1, 14.

Nor is there evidence in the record to justify the master's finding that a business brought to successful operation "should have a going concern value at least equal to one-third of its physical properties." Past losses obviously do not tend to prove present values. The fact that a sometime losing business becomes profitable eventually through growth of the community or more efficient management, tends to prove merely that the adventure was not wholly misconceived. It is doubtless true, as the master indicated, that a prospective purchaser of the Galveston system would be willing to pay more for it with a record of annual losses overcome, than he would if the losses had continued. But would not the property be, at least, as valuable if the past had presented a record of continuous successes? And shall the base value be deemed less in law if there was no development cost, because success was instant and continuous? Or, if the success had been so great that, besides paying an annual return at the rate of 8 per cent., a large surplus had been accumulated, could the city insist that the base value be reduced by the amount of the surplus? Compare *Newton* v. *Consolidated Gas Co., ante,* 165.

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[1] On the other hand, if what is to be considered in determining the net deficit is not the result of operations from the beginning of the enterprise, but the result of operations since the present owner acquired it—in other words, the return on its investment—we are left without the data necessary to determine the fact. For the record does not disclose what the present company paid when it purchased the property in 1905 as a going concern. For aught that appears, appellant has received full 8 per cent. annually on that amount and later additions to capital.

In determining the value of a business as between buyer and seller, the goodwill and earning power due to effective organization are often more important elements than tangible property. Where the public acquires the business, compensation must be made for these, at least under some circumstances. *Omaha* v. *Omaha Water Co.,* 218 U. S. 180, 202, 203; *National Waterworks Co.* v. *Kansas City,* 62 Fed. 853, 865. And they, like past losses, should be considered in determining whether a rate charged by a public utility is reasonable. Compare *Venner Co.* v. *Urbana Waterworks,* 174 Fed. 348, 352. But in determining whether a rate is confiscatory, goodwill and franchise value were excluded from the base value in *Cedar Rapids Gas Light Co.* v. *Cedar Rapids,* 223 U. S. 655, 669, and *Des Moines Gas Co.* v. *Des Moines,* 238 U. S. 153, 169; and the expressions in *Denver* v. *Denver Union Water Co.,* 246 U. S. 178, 184, 191, and in *Lincoln Gas & Electric Light Co.* v. *Lincoln,* 250 U. S. 256, 267, are not to be taken as modifying in any respect the rule there declared. Going concern value and development cost, in the sense in which the master used these terms, are not to be included in the base value for the purpose of determining whether a rate is confiscatory.

The other item included by the master in determining base value, but disallowed by the court, is $67,078 for brokerage fees. There is no evidence that any sum was in fact paid as brokerage, and there was included, as above shown, the sum of $73,281 for organization and business management in calculating the historical reproduction cost. The finding of the master rests upon testimony that bankers customarily get, in some form, compensation equal to 4 per cent. on the money procured by them for such enterprises.[1] But compensation for bankers' services is often paid in the lessened price at which they take the company's securities, and is thus represented in the higher rate of interest or dividend paid on the money actually received by the company as capital. The reason given by the master for including the allowance for an assumed brokerage fee, is that a brokerage fee is " a normal incident of large industrial investments, and has not been amortized," since " the record shows that . . . the plant has been operated at a loss." If base value were to be fixed by the money expended, brokerage fees actually paid might with propriety be included, as are taxes paid pending construction. But as the base value considered is the present value, that value must be measured by money; and the customary cost of obtaining the money is immaterial. We cannot say that the court erred in refusing to include in base value an allowance for hypothetical brokers' fees.

The appellant insisted also that the base value should be raised by assuming that the future plateau of prices would be 60 to 70 per cent. above the historical reproduction value instead of 33 1/3 per cent. as the master and the court assumed. The appellees insisted, on the other hand, that an item of $142,281 for grade raising included by master and court in the historical cost should be eliminated. We cannot say that there was error in overruling these contentions.

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[1] The record cost of the property was originally used as the base for this calculation. But the figure $67,078 was tacitly agreed by both parties to be the amount, if any, that should be allowed for brokerage.

Second. Concerning deductions to be made from gross revenue in order to determine net earnings, the court differed from the master in regard both to the yearly charge for maintenance and to the depreciation annuity. It appeared that in the fifteen years since appellant acquired the system in 1905, the average annual expenditure for maintenance had been $42,771; that during the war the property had been admittedly undermaintained; that the expenditure was $64,108 in the calendar year 1919; $80,322 in the fiscal year ending June 30, 1920, and $90,861.28 in the calendar year 1920. The court estimated the proper charge for current maintenance at $70,000, and allowed, in addition, a depreciation annuity of $45,245 (that is, 4 per cent. on property subject to depreciation) to provide a fund out of which annual replacements and renewals could be made. Thus the court allowed for the year's depreciation and maintenance $115,245, which is nearly 14 per cent. of the historical reproduction value, and about 10 per cent. of the assumed reproduction cost, of the depreciable part of the system. The master allowed $147,146.40 for maintenance and depreciation during the year ending June 30, 1920. This larger figure was arrived at, partly by charging as cost of maintenance the full $80,322 expended during that year, and partly by including as depreciable property expenditures for overhead items which the court excluded. The proper annual charge for maintenance is the amount normally required for that purpose during the period; it is not necessarily the amount actually expended within the year. Many items included in the overhead cost of original construction may properly be excluded in calculating the amount of the depreciation annuity. We cannot say that the court erred in limiting the year's maintenance and depreciation allowances to an aggregate of $115,245.

The company asked to have allowed as a further charge $29,500 a year on account of what it called deferred maintenance. The contention is that, during the war and two years following, the company had deferred maintenance, pursuant to a policy established at the express request of the Government to the end that material and labor might be released for war purposes; that to make good this deferred maintenance would cost $197,000; and that in order to amortize this amount an annual allowance from earnings of $29,500 should be made for five years. This is an attempt, in another form, to capitalize alleged past losses; and the request was properly refused both by the master and the court.

Third. The remaining item as to which the master and the court differed relates to the income tax. The company assigns as error that the master allowed, but the court disallowed, as a part of the operating expenses for the year ending June 30, 1920, the sum of $16,254 paid by the company during that year for federal income taxes. The tax referred to is presumably that imposed by the Act of February 24, 1919, c. 18, §§ 230–238, 40 Stat. 1057, 1075–1080, which for any year after 1918 is 10 per cent. of the net income. In calculating whether the five-cent fare will yield a proper return, it is necessary to deduct from gross revenue the expenses and charges; and all taxes which would be payable if a fair return were earned are appropriate deductions. There is no difference in this respect between state and federal taxes or between income taxes and others. But the fact that it is the federal corporate income tax for which deduction is made, must be taken into consideration in determining what rate of return shall be deemed fair. For under § 216 the stockholder does not include in the income on which the normal federal tax is payable dividends received from the corporation. This tax exemption is therefore, in effect, part of the return on the investment.[1]

It is thus clear that both in the year ending June 30, 1920, and in the calendar year 1920, the net earnings of the system were less than 8 per cent. of its value, whether the value be estimated on the basis of prudent investment or on the basis of the reproduction cost actually adopted. When the court rendered its decision the ordinance had been tested for more than a year and a half—a period ample in ordinary times to test the current effect of the rate prescribed and to indicate its probable effect in the near future. The times here involved were, however, in a high degree abnormal. It did not follow that, because the system had earned less than 8 per cent. in 1919 and in 1920, it would earn less than 8 per cent. in 1921. A rate ordinance invalid when adopted may later become valid, just as an ordinance valid when made may become invalid by change in conditions. *Municipal Gas Co.* v.

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[1] It is difficult to see how, on the facts presented, so large a sum as $16,254 could have been paid on account of the year's operation. Indeed the court, in disallowing the item of federal income tax, deducted not $16,254, but $8,008. Even this seems too large, for the net earnings, without deduction of the $16,254 attributed to income tax, for the year ending June 30, 1920, as found by the master, were $66,503.60. From this, interest paid or accrued on indebtedness is to be deducted before computing the net income on which the tax is payable. A large part of the capital of utility companies is ordinarily represented by interest-bearing bonds and notes; and there is evidence that such indebtedness of the appellant was "in the neighborhood of $1,400,000." The interest on this debt chargeable to the railway system would be at least $50,000. There is further an exemption from tax of $2,000 of the net income. So a 10 per cent. tax on the balance would amount to less than $1,500.

In the record and briefs elsewhere the income tax is reckoned at between $8,000 and $10,000, which is a proper figure if there be an 8 per cent. return on $1,626,061.

Public Service Commission, 225 N. Y. 89, 96. Compare *Willcox* v. *Consolidated Gas Co.*, 212 U. S. 19; *Newton* v. *Consolidated Gas Co., ante*, 165.

The District Judge was obliged to form an opinion as to the probable net earnings in the future. All relevant facts, except as stated, and all applicable arguments were fully and clearly presented by the parties and were carefully considered by the court. Although the District Judge treated the master's report as advisory merely, he passed upon the numerous exceptions taken to the master's findings in order to indicate his view on the precise points raised. He allowed some exceptions and disallowed others. Upon petition for rehearing further careful consideration was given to the case. Views expressed in the first opinion on some matters were modified; but these changes did not call for any change in the decree. The District Judge had before him some evidence not before the master; for the company's expert was recalled and testified both to the result of operations of later months in which there was a large increase in travel and to the heavy decline in prices which occurred after October. Concerning actual facts there was substantially no controversy. On the elements to be considered in determining whether the rate would be confiscatory no error was made which could substantially affect the result. His determination whether the prescribed rate would be confiscatory was necessarily based largely on a prophecy, for normal conditions had not been restored. He found that gross revenues were steadily increasing; and that they were larger under the five-cent fare than they had been during the preceding year when the six-cent rate was in effect. He was convinced that operating costs would decrease largely during the year. His two opinions show that every element upon which his prophecy should be based received careful consideration. We cannot say that the evidence compelled a conviction that the rate would

prove inadequate. Compare *San Diego Land & Town Co.* v. *National City,* 174 U. S. 739, 754. *San Diego Land & Town Co.* v. *Jasper,* 189 U. S. 439; *Knoxville* v. *Knoxville Water Co.,* 212 U. S. 1, 17.

The occasion for the suit was solely the extraordinary rise in prices incident to the war. There was no suggestion that the action of the Board evidenced hostility to the utility, or that the Board was arbitrary or hasty. It had been theretofore considerate of the company's rights and needs. When prices rose rapidly in 1918, it raised the fare limit to six cents, although the franchise ordinance prescribed the five-cent fare. And this was before our decision in *San Antonio* v. *San Antonio Public Service Co.,* 255 U. S. 547. Its reduction of the fare by ordinance of June 5, 1919, was made after hearing, and was doubtless due to the conviction, shared by many, that, with the cessation of hostilities and the negotiation of the Peace Treaty, prices and operating cost would fall abruptly. This prophecy, if such there was, proved false. But nearly three years have elapsed since the Board adopted the ordinance; and more than a year since entry of the decree below. We know judicially that the period has, in general, been one of continuous price recession, and that the current rates of return on capital are much lower than they then were.[1] But we cannot know to what extent the important changes occurring have affected either gross revenues or the net return. There is no reason to believe that the Board would not give full and fair consideration to a proposed change in rate if application were now made to it. And the District Judge stated in his opinion (272 Fed. 147), that the decree to be entered would be vacated or amended in case it should later appear that the regulating board declined such adjustment of rates as the actual experience of the utility might show it entitled to; and the decree was thereupon entered without prejudice.

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[1] See Federal Reserve Bulletin, January, 1922, pp. 5, 79, 113; February, 1922, pp. 156–7.

The District Judge refused a temporary injunction and did not exact a bond. Hence the only relief we can grant is such as operates *in futuro*. Compare *Duplex Printing Press Co.* v. *Deering,* 254 U. S. 443, 464. An injunction should not issue now, unless conditions are such that the prescribed rate is confiscatory. As by the reservation in the decree appellant may secure protection against the ordinance if under existing conditions the five-cent rate appears to be inadequate, the decree should be affirmed. Compare *Lincoln Gas & Electric Light Co.* v. *Lincoln,* 250 U. S. 256, 268; *Ex parte Lincoln Gas & Electric Light Co.,* 256 U. S. 512; 257 U. S. 6.

Decree affirmed.